

Responses to Additional Comments

on the

Draft Environmental Analysis

Prepared for the

**Endorsement of the Updated California
Tropical Forest Standard**

**California Air Resources Board
1001 I Street
Sacramento, California, 95814**

Released September 9, 2019

to be considered at the

September 19, 2019 Board Hearing

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TABLE OF CONTENTS

1.	INTRODUCTION	1
	1.1. CRP Requirements for Responses to Additional Comments	2
	1.2. Responses to Substantive Additional Comments	4
2.	RESPONSES TO ADDITIONAL COMMENTS	1

Tables

Table 1-1: List of Comment Letters Not Receiving a Further Response	1-6
Table 2-1: List of Comment Letters Receiving Responses.....	2-1

Attachments

- A. Additional Comment Letters

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1. INTRODUCTION

The California Air Resources Board (CARB) released a Draft Environmental Analysis (Draft EA) for the proposed endorsement of the California Tropical Forest Standard (Proposed Project) on September 14, 2018, for a 45-day public review and comment period that concluded October 29, 2018. During the public comment period for the Proposed Project, 76 unique comment letters were received.¹ Five additional letters were received after the close of the comment period resulting in a total of 81 unique comment letters received on the Proposed Project, nine of which were determined to raise significant environmental issues related to the analysis in the Draft EA and were responded to in a Response to EA Comments released on November 9, 2018.²

CARB staff made minor modifications to the Draft EA to create the Final EA that it posted on November 9, 2018. To facilitate identifying modifications to the document, staff modified the text in the Final EA with ~~strike-through~~ for deletions and underline for additions. None of the modifications altered any of the types of foreseeable compliance responses evaluated or conclusions reached in the Draft EA, introduce new significant effects on the environment, or provide any significant new information requiring recirculation. As a result, these revisions did not require recirculation of the draft document pursuant to the California Environmental Quality Act (CEQA) Guidelines, California Code of Regulations, title 14, section 15088.5, before consideration by the Board.

Following the November 16, 2018 Board hearing, CARB continued to assess issues raised by supporters and opponents of the Standard and received additional input from several members of the Legislature. Based on consideration of these issues and input, CARB updated the Proposed Project with modifications to the Standard.

On July 30, 2019, CARB staff posted the notice for the September 19, 2019 Board hearing to consider endorsing the updated California Tropical Forest Standard. None of the modifications presented in the updated California Tropical Forest Standard released along with the notice of public meeting alter any of the types of foreseeable compliance responses evaluated or conclusions reached in the Draft EA, introduce new significant effects on the environment, or provide new information of substantial importance relative to the EA. As a result, these revisions to the standards do not require recirculation of the draft document pursuant to the California Environmental Quality Act (CEQA) Guidelines, California Code of Regulations (CCR), title 14, section 15088.5, before consideration by the Board. Therefore, there was no CEQA public comment period for the Board's consideration of the updated Standard and the Final EA posted

¹ Several of these letters were also submitted as part of action alerts by various environmental organizations (e.g., Amazon Watch, Center for Biological Diversity, Environmental Defense Fund, and Friends of the Earth). These various action alerts resulted in approximately 21,000 comments submitted into the public record.

² https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests/final_rtc_ca_tropical_forest_standard.pdf

for the September 2019 hearing is in the same form and substance as the Final EA released on November 9, 2018.

While CARB is under no obligation to respond to comments received outside of a formal, noticed CEQA public comment period, it may, nonetheless, choose to respond to these late comments. (Public Resources Code (PRC) 21091; 14 CCR § 15088) CARB received several comments in response to the recent public meeting notice and updated Standard it sent out for the Proposed Project. Most of the comments received solely related to the public's general opposition or support of the Proposed Project. There were a few members of the public, however, that commented on the adequacy of the Draft EA. In an effort to be fully transparent and responsive to the concerns raised regarding the Draft EA's analysis, supporting substantial evidence and findings, CARB staff has prepared responses to these additional comments.

CARB staff carefully reviewed all the comment letters received during the most recent (non-CEQA) comment period that ended on August 29, 2019 to determine which ones raised significant environmental issues related to the analysis in the Draft EA and prepared a written response to those additional comments. A total of 158 comment letters were submitted to the comment docket set up for the Proposed Project. Out of the 158 comments received, eight comment letters were determined to include comments directly or indirectly related to the Draft EA. Since CARB received these comments outside of the CEQA comment period, these comments are considered late comments for CEQA purposes. This document includes CARB staff's written responses to that subset of additional comments and will be provided to the Board for consideration prior to it taking final action on the Proposed Project.

The written responses include a brief summary of the substantive issues raised in each comment letter, followed by the written response. CARB staff extracted the substantive comments within each comment letter that warranted a response; the full comment letters for which CARB prepared a response are provided in Attachment A of this document with portions of the letters bracketed to identify comments addressed through CARB responses. Although this document includes written responses only to those comments related to the Draft EA, all comment letters received were considered by staff and provided to the Board members for their consideration.

Following consideration of the comments received on the Draft EA and during the preparation of the responses to those comments, the comments' substance did not require CARB to further revise the Final EA, which was released on November 9, 2018 for the November 2018 Board hearing on the Proposed Project and provided to the Board prior to taking final action on the Proposed Project at the September 2019 Board hearing.

1.1. CRP Requirements for Responses to Additional Comments

These written responses to late public comments on the Draft EA are prepared in accordance with CARB's certified regulatory program (CRP) to comply with CEQA. CARB's certified regulations state:

California Code of Regulations, title 17 section 60007. Response to Environmental Assessment

(a) If comments are received during the evaluation process which raise significant environmental issues associated with the proposed action, the staff shall summarize and respond to the comments either orally or in a supplemental written report. Prior to taking final action on any proposal for which significant environmental issues have been raised, the decision maker shall approve a written response to each such issue.

Public Resources Code section 21091 also provides guidance on reviewing and responding to public comments in compliance with CEQA. While this section refers to environmental impact reports, proposed negative declarations, and mitigated negative declarations, rather than an EA, it contains useful guidance for preparing a thorough and meaningful response to comments.

Public Resources Code section 21091, subdivision (d) states:

(1) The lead agency shall consider comments it receives if those comments are received within the public review period.

(2) (A) With respect to the consideration of comments received, the lead agency shall evaluate any comments on environmental issues that are received from persons who have reviewed the draft and shall prepare a written response pursuant to subparagraph (B). The lead agency may also respond to comments that are received after the close of the public review period.

(B) The written response shall describe the disposition of each significant environmental issue that is raised by commenters. The responses shall be prepared consistent with section 15088 of Title 14 of the California Code of Regulations.

California Code of Regulations, title 14, section 15088 (CEQA Guidelines) also includes useful information and guidance for preparing a thorough and meaningful response to comments. It states, in relevant part, that specific comments and suggestions about the environmental analysis that are at variance from the lead agency's position must be addressed in detail with reasons why specific comments and suggestions were not accepted. Responses must reflect a good faith, reasoned analysis of the comments.

California Code of Regulations, title 14, section 15088 (a – c) states:

(a) The lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The Lead Agency shall respond to comments received during the noticed comment period and any extensions and may respond to late comments.

(b) The lead agency shall provide a written proposed response to a public agency on comments made by that public agency at least 10 days prior to certifying an environmental impact report.

(c) The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice.

California Code of Regulations, title 14, section 15204 (a, c and e) states:

(a) In reviewing draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.

(c) Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence.

(e) This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section.

Furthermore, when a public comment does not argue that the EIR is subject to new, unanalyzed issues or contains an analytical gap in its environmental analysis, the lead agency could simply "respond ... by referencing the EIR's discussion of the issues [raised by a public comment] and providing a brief, general response [to the public comment]." (Los Angeles Conservancy v. City of West Hollywood (2017) 18 Cal.App.5th 1031, 1041.)

1.2. Responses to Substantive Additional Comments

CARB may prepare written responses to those additional comments that raise "significant environmental issues" associated with the proposed action (PRC § 21091(d); 17 CCR § 60007(a); 14 CCR § 15088.). A total of 158 comment letters were submitted to the comment docket set up for the Proposed Project that opened July 30,

2019 and closed on August 29, 2019. Out of the 158 comments received, eight comment letters were determined to include comments directly or indirectly related to the Draft EA. These letters are considered late comment letters, which do not require a response from CARB under CEQA, because they were received well beyond the noticed public comment period for the Draft EA that occurred between September 14, 2018 and October 29, 2018. Nonetheless, in an effort to be fully transparent and to conduct its environmental review in good faith, CARB has decided to provide a written response to these comments. CARB staff was conservative and inclusive in determining which comments warranted a written response and even included comments that did not explicitly mention the Draft EA, but did raise an issue related to potential adverse impacts or potential alternatives that could be construed as being related to the Proposed Project.

Below is a list of all the comment letters that were received but not responded to in this document (Table 1-1). These comment letters were considered by CARB staff and provided to the Board members for their consideration. Responses are not provided to these comments in this document because CARB staff determined they do not raise significant environmental issues related to the Draft EA and do not require a response under CARB's certified regulatory program and CEQA. Furthermore, the Proposed Project is not subject to the requirements of the Administrative Procedure Act to prepare a Final Statement of Reasons with written responses to each issue, and there is no requirement in or any other statute governing the preparation of the Proposed Project that requires CARB to prepare written responses to each issue raised related to the Proposed Project. Nonetheless, these comments are part of the record, were taken into consideration when CARB staff prepared the final Proposed Project, and were provided to Board members for their full consideration before taking action on the Proposed Project.

Table 1-1: List of Comment Letters Not Receiving Responses

#	Received From	Subject	Comment Period	Date/Time Added to Database
1	Mayben, Bill, Wm Mayben and Associates	Tropical Forest Standard tfs 2019	Non-Reg	2019-07-30 13:44:13
3	Weeks, Deseret, University of California, Merced	Endorsement of an Updated California Tropical Forest Standard	Non-Reg	2019-08-21 12:10:01
4	Block, Kristin,	Please endorse the California Tropical Forest Standard	Non-Reg	2019-08-22 17:42:46
5	Deshmukh, Nikhil,	Please endorse CTFS	Non-Reg	2019-08-22 18:00:09
6	Oliveira, Gustavo de L.T., University of California Irvine	Comments for Consideration of Endorsement of an Updated CA Tropical Forest Standard	Non-Reg	2019-08-26 09:20:52
7	Radomir, Michael, Code Redd and Stand for Trees	Letter of endorsement for the California Tropical Forest Standard	Non-Reg	2019-08-26 12:16:59
8	Kubo, Lucien, Santa Cruz Indivisible	Endorsement of an updated California Tropical Forest standard	Non-Reg	2019-08-27 07:23:52
9	Lee, Pamela,	Comments on California Tropical Forest Standard	Non-Reg	2019-08-27 08:11:09
10	Baum, Miriam,	no carbon offsets	Non-Reg	2019-08-27 08:34:13

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

11	Anderholm, Jon,	off sets only seem to benefit the polluters	Non-Reg	2019-08-27 08:41:29
12	Silver, Dan,	Tropical forest offsets	Non-Reg	2019-08-27 08:47:14
13	Bobier, Victor,	No offsets	Non-Reg	2019-08-27 08:51:12
14	Doyle, Kelly,	No Carbon Offsets	Non-Reg	2019-08-27 08:52:41
15	Fdez, Sol, Ms.	Pollution	Non-Reg	2019-08-27 08:54:38
16	Bumstead, Jon, Mr	carbon offset	Non-Reg	2019-08-27 09:06:18
17	Groome, Malcolm,	Proposed Carbon Offsets	Non-Reg	2019-08-27 09:26:18
18	Gibb, Wayne,	NO on tropical carbon offsets	Non-Reg	2019-08-27 09:26:38
19	Ojeda, Carlos Alberto Crasborn, ACOFOP	Comment Letter on CA Tropical Forest Standard	Non-Reg	2019-08-27 09:29:43
20	Gottejman, Brian,	Updated California Tropical Forest Standard	Non-Reg	2019-08-27 10:13:11
21	Edwards, Rupert , Forest Trends	Endorsement of Updated California Tropical Forest Standard	Non-Reg	2019-08-27 10:31:56
22	Sugarman, Steven,	Real Climate Solutions	Non-Reg	2019-08-27 10:36:26
23	Ludwig, George,	TROPICAL FOREST	Non-Reg	2019-08-27 10:53:41
24	Katzen, joanne,	Carbon offsets	Non-Reg	2019-08-27 11:16:08
25	Bader , Susanne,	Environmental	Non-Reg	2019-08-27 11:32:55

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

26	Henley , Charlene,	Chemicals	Non-Reg	2019-08-27 11:41:27
27	Stewart, Hollis, North Pine Neighborhood Alliance	Stop destroying the environment	Non-Reg	2019-08-27 11:48:10
28	McManus, Philip,	Comment on the Endorsement of an Updated California Tropical Forest Standard	Non-Reg	2019-08-27 12:02:55
29	Cooper, RJ,	Renewable energy, not fossil fuels	Non-Reg	2019-08-27 12:22:19
30	Dudley, Andrew, Earth PBC	California Tropical Forest Standard	Non-Reg	2019-08-27 13:16:08
31	Dean, Rayline,	Reference to Docket TFS2019	Non-Reg	2019-08-27 14:01:32
32	Poland, Barbara,	carbon offsets	Non-Reg	2019-08-27 14:03:47
33	Buckwald, Jan,	carbon offsets	Non-Reg	2019-08-27 14:10:18
34	Habegger, Sue,	Carbon Offsets	Non-Reg	2019-08-27 14:20:13
35	Rain, Patricia, The Vanilla Company	No Carbon Offset Options	Non-Reg	2019-08-27 14:40:06
36	Guenther, Craig,	Tropical Forest Carbon offsets	Non-Reg	2019-08-27 14:56:25
37	Machaqueiro, Raquel,	Why the CARB should not use any kind of forest offsets	Non-Reg	2019-08-27 15:24:55
38	Korchinsky, Mike, Wildlife Works	Tropical Forest Standard Support	Non-Reg	2019-08-27 15:38:05
39	Wong, Craig,	Reject the Tropical Forest Standard	Non-Reg	2019-08-27 16:04:40
40	Bonnett, Andrea,	Carbon Offsets	Non-Reg	2019-08-27 16:55:56

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

41	Florian, Brian,	No Carbon Offset	Non-Reg	2019-08-27 17:00:37
42	Fanucchi, Joanne,	Say NO to Tropical Forest Standard	Non-Reg	2019-08-27 17:53:01
43	Chase, Felicia,	Clean Air.	Non-Reg	2019-08-27 20:20:13
44	San Roman Montero, Martha,	Support letter from the Government of Campeche Mexico	Non-Reg	2019-08-27 21:20:16
45	Vasquez, Floriberto,	Support for California Tropical Forest Standard Oaxaca Mexico	Non-Reg	2019-08-27 21:42:42
46	Robles, Rafael,	Quintana Roo support comments to the California Tropical Forest Standard	Non-Reg	2019-08-27 21:49:13
47	Rodas, Jenner,	Support letter from the Government of Chiapas Mexico	Non-Reg	2019-08-27 21:53:47
48	Marvin, David, Salo Sciences, Inc.	Public comment on updated CTFS	Non-Reg	2019-08-27 21:35:08
49	Medrano, Daniel,	pollution	Non-Reg	2019-08-27 22:28:58
50	Leining, Catherine, Motu Economic and Public Policy Research	Support for the revised California Tropical Forest Standard (tfs2019)	Non-Reg	2019-08-27 23:23:44
51	Sorensen, Johnny,	Off Sets for public polluters	Non-Reg	2019-08-28 05:06:06
52	Murphy, Colin,	No Carbon Offsets!	Non-Reg	2019-08-28 06:24:55
53	Campbell, Allan,	Comments on Carbon Offsets	Non-Reg	2019-08-28 08:12:29

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

54	Gonzalez, Yazmin,	Comments on TFS2019	Non-Reg	2019-08-28 08:26:12
55	Fiandaca, Anastasia,	Do not Endorse the California Tropical Forest Standard	Non-Reg	2019-08-28 10:33:17
56	Grant, Stefani, Unilever	Support for California Tropical Forest Standard	Non-Reg	2019-08-28 11:03:38
57	Busch, Jonah, Earth Innovation Institute	Strong support for endorsement of updated California Tropical Forest Standard (tfs2019)	Non-Reg	2019-08-28 10:58:51
58	Zaunbrecher, Virginia,	Comments from UCLA's Center for Tropical Research to TFS2019	Non-Reg	2019-08-28 11:56:36
59	McCain, Christina, Environmental Defense Fund	Support for endorsement of updated California Tropical Forest Standard (tfs2019)	Non-Reg	2019-08-28 12:49:50
60	Laskin, Emily,	No to California Tropical Forest Standard	Non-Reg	2019-08-28 13:57:24
61	Lockhart, Bonnie,	NO on Tropical Forest Standard	Non-Reg	2019-08-28 14:39:54
62	Bravo, Jose,	Reject TFS	Non-Reg	2019-08-28 14:46:53
63	Schacher, Susan,	Oppose endorsement of the California Tropical Forest Standard	Non-Reg	2019-08-28 14:51:10
64	Dent, Dorothy,	Vote NO on Tropical Forest Standard Bill	Non-Reg	2019-08-28 15:38:06
65	Schroeder, Janice, West Berkeley Alliance	Opposition to endorsement of the	Non-Reg	2019-08-28 16:05:15

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

	for Clean Air and Safe Jobs	California Tropical Forest Standard		
66	Hendel, Larry,	TFS 2019	Non-Reg	2019-08-28 16:17:25
67	Makes-Marks, PhD, Lou-Anne F., Sacred America	IEN and Sacred America Comments on the Tropical Forest Standard 2019	Non-Reg	2019-08-28 16:53:54
68	Smith, Ted,	Opposition to the TFS Offset Standard	Non-Reg	2019-08-28 17:23:53
69	Ramo, Alan,	Opposed to the California Troical Forest Standard	Non-Reg	2019-08-28 18:21:39
70	Umbelino, Maria Tereza,	BMV standard supports the updated California Forest Standard	Non-Reg	2019-08-28 18:23:58
71	Quispe, Oscar, Government of Amazonas	Support for TFS from government of Amazonas	Non-Reg	2019-08-28 20:19:36
72	Cornelio, Juan, Governor of Huanuco	Support for TFS from Governor of Huanuco	Non-Reg	2019-08-28 20:24:27
73	Cornelio, Juan, Governor of Huanuco	Support for TFS from Governor of Huanuco	Non-Reg	2019-08-28 20:24:27
74	Okimura, Guillermo, Governor of Madre de Dios	Support for TFS from Governor of Madre de Dios	Non-Reg	2019-08-28 20:26:14
75	Vargas, Pedro, Governor of San Martin	Support for TFS from Governor of San Martin	Non-Reg	2019-08-28 20:28:58
76	Torres, Francisco, Governor of Ucayali	Support for TFS from Governor of Ucayali	Non-Reg	2019-08-28 20:30:33

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

77	Mellen, Linda, Concerned citizen	Fluorocarbons	Non-Reg	2019-08-28 20:34:29
78	Lugo, Humberto,	Oppose the offsets	Non-Reg	2019-08-28 20:46:25
79	Tavares, Eduardo , State Member of GCF Brazil	Support letter to the updated California Tropical Forest Standard	Non-Reg	2019-08-28 20:40:17
80	Tuttle, Andrea, Forest and Climate Policy	SUPPORT ENDORSEMENT OF UPDATED CALIFORNIA TROPICAL FOREST STANDARD	Non-Reg	2019-08-28 22:08:17
81	Lahiri, Souparna, Global Forest Coalition	Submission and comments to California Air Resources Board on the proposed Tropical Forest	Non-Reg	2019-08-29 00:16:45
82	Clairs, Tim, UNDP	UNDP Statement in Support of CFTS	Non-Reg	2019-08-29 05:56:41
83	Lish, Christopher,	Do NOT endorse the California Tropical Forest Standard	Non-Reg	2019-08-29 07:29:15
84	Elsa, Megan,	No Carbon Offsets for the Amazon	Non-Reg	2019-08-29 08:04:24
85	Fanucchi, Joanne,	Say No to Tropical Forest emissions	Non-Reg	2019-08-29 08:05:11
86	Seymour, Frances,	Comments on Draft Tropical Forest Standard	Non-Reg	2019-08-29 08:36:27
87	Duchelle, Amy, Center for International Forestry Research	REDD+ addresses climate stability and sustainable development objectives	Non-Reg	2019-08-29 08:33:19

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

88	Rumsey, Stephen, Permian Global	Permian Global Supports CARB's Endorsement of Tropical Forest Standard	Non-Reg	2019-08-29 09:16:59
89	Marina, Aida,	No Carbon Offsets	Non-Reg	2019-08-29 09:37:41
90	Tilly, Chris, Professor, UCLA Urban Planning	Reduce emissions, don't paper them over with tropical forest offsets	Non-Reg	2019-08-29 09:31:57
91	Misumi, Don,	Stop this false solution	Non-Reg	2019-08-29 10:24:45
92	Roth, James, Conservation International	Support endorsement of updated Tropical Forest Standard (TFS2019)	Non-Reg	2019-08-29 10:37:29
93	Gonzalez Potter, Isabella, The Nature Conservancy	TFS Support Letter	Non-Reg	2019-08-29 10:14:12
94	Smithies, Cassandra,	REJECT TFS	Non-Reg	2019-08-29 11:42:49
95	Chorneau, William,	Public Comment on the California Tropical Forest Standard	Non-Reg	2019-08-29 11:57:48
96	Omi Casama, Sara, Congreso General Embera de Alto Bayano	Support for endorsement of updated California Tropical Forest Standard	Non-Reg	2019-08-29 12:47:11
97	Ebert, Craig, Climate Action Reserve	Support for endorsement of California TFS	Non-Reg	2019-08-29 13:42:29
98	Forsyth, Tim, London School of Economics and Political	Concerns about Updated California	Non-Reg	2019-08-29 13:17:47

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

		Tropical Forest Standard		
99	Saldamando, Alberto, Indigenous Environmental Network	TFS	Non-Reg	2019-08-29 14:01:27
100	Lopez, Robinson, COICA	Support for endorsement of California Tropical Forest Standard	Non-Reg	2019-08-29 14:11:26
101	Kaur, Harjot, UCLA Emmett Institute on Climate Change and the Environment	Emmett Institute comments on Updated Tropical Forest Standard	Non-Reg	2019-08-29 14:25:43
102	Silva, Renato, Government of Tocantins	Government of Tocantins supports TFS	Non-Reg	2019-08-29 14:31:58
103	Simas, Lydia,	NO to Tropical Forest Standard	Non-Reg	2019-08-29 14:38:38
104	Melton PG&E, Jessica, PG&E	PG&E Support Letter for TFS	Non-Reg	2019-08-29 14:42:54
106	Vallejo, Roberto,	Comments from Yucatan Mexico	Non-Reg	2019-08-29 14:55:57
107	Ribeiro, Rafael, Secretary of Environment Maranhao	Maranhao supports TFS	Non-Reg	2019-08-29 14:52:38
108	Taveira, Eduardo, Secretary of Environment of Amazonas	Government of Amazonas supports TFS	Non-Reg	2019-08-29 14:57:14
109	Lazzaretti, Maurren, Secretary of Environment Mato Grosso	Mato Grosso supports TFS	Non-Reg	2019-08-29 14:59:40
110	Lazzaretti, Maurren, Secretary of	Mato Grosso supports TFS	Non-Reg	2019-08-29 14:59:40

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

	Environment Mato Grosso			
111	Makes-Marks, Lou-Anne Fauteck, Sacred America and IEN	Comment of Sacred America and Indigenous Environmental Network	Non-Reg	2019-08-29 14:58:00
112	Mauro, Jose, Support for TFS from Para	Government of Para support TFS	Non-Reg	2019-08-29 15:01:31
113	Blanco, Alejandra,	California Forest Standard Jalisco comments	Non-Reg	2019-08-29 15:04:35
114	Cameli, Gladson, Governor of Acre Brazil	Government of Acre Brazil Supports TFS	Non-Reg	2019-08-29 15:08:47
115	Shelby, Heather,	Support for endorsement of TFS	Non-Reg	2019-08-29 15:02:43
116	TAVARES, EDUARDO, State Member of GCF Brazil	Support letter to the updated California Tropical Forest Standard	Non-Reg	2019-08-29 15:23:17
117	Swift, Sonja, Swift Foundation	Swift Foundation Rejects the TFS	Non-Reg	2019-08-29 15:32:10
118	Swift, Sonja, Swift Foundation	Climate Justice Foundations Reject the TFS	Non-Reg	2019-08-29 15:33:42
119	UMBELINO, MARIA TEREZA,	BMV standard supports the updated California Forest Standard	Non-Reg	2019-08-29 15:31:47
120	Sullivan, Katie,	IETA Comments on Tropical Forest Standard	Non-Reg	2019-08-29 16:01:33
121	Campos, Rogerio, Director, Fdn for Env't and Water Roraima	Amapa supports the TFS	Non-Reg	2019-08-29 15:53:59

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

122	Nobre, Roberio, Secretary of Env't Amapa Brazil	Support for California's TFS from Amapa Brazil	Non-Reg	2019-08-29 16:12:48
125	Fernandez, Ignacio, Southern California Edison	Southern California Edison Letter of Support on Draft California Tropical Forest Standard	Non-Reg	2019-08-29 16:54:34
126	Nepstad, Daniel, Earth Innovation Institute	Scientists urge endorsement of California Tropical Forest Standard	Non-Reg	2019-08-29 16:59:51
127	Kahn, Paula,	The CTFS does not guarantee reduction in carbon emissions	Non-Reg	2019-08-29 18:19:37
128	Grajales Cabrera, Abigail , Congreso General de TCEW	Support for endorsement of California Tropical Forest Standard	Non-Reg	2019-08-29 18:24:09
129	Malinao, Grace	I am against the TFS Measure.	Non-Reg	2019-08-29 18:29:31
130	Toteva, Dilyana,	Protect our environment	Non-Reg	2019-08-29 18:37:22
131	Correa de Souza Belo, Joaquim, CNS	Support for endorsement of California Tropical Forest Standard	Non-Reg	2019-08-29 18:45:18
133	Angel, Bradley, Greenaction for Health & Environmental Justice	Opposition to California Tropical Forest Standard proposal	Non-Reg	2019-08-29 20:28:41
134	Luong, Susanna,	I do not approve of the TFS measure.	Non-Reg	2019-08-29 21:04:23
136	Feitosa Mendes, Angela Maria, Comite Chico Mendes	Endorse California TFS	Non-Reg	2019-08-29 21:14:59

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

137	Withey, Lauren, UC Berkeley	TFS Concerns	Non-Reg	2019-08-29 21:13:16
138	Sanchez, Gustavo, AMPB	Endorse California TFS	Non-Reg	2019-08-29 21:38:39
139	Blanchard, Libby, Cambridge Conservation Research Institut	Recommendation to Not Endorse the Revised Tropical Forest Standard	Non-Reg	2019-08-29 21:16:22
140	Chan, Michelle,	3108 CA residents in strong opposition to TFS	Non-Reg	2019-08-29 21:26:59
141	Yawanawa, Tashka, Yawanawa Sociocultural Association	Support for endorsement of California Tropical Forest Standard	Non-Reg	2019-08-29 21:53:04
142	Granlund, Fred,	TFS2019	Non-Reg	2019-08-29 22:14:39
143	Hise, Sandra,	#NOTFS	Non-Reg	2019-08-29 22:41:32
145	Osborne, Tracey,	California's Tropical Forest Standard	Non-Reg	2019-08-29 23:01:01
146	McAfee, Kathleen, San Francisco State University	Haya, McAfee: Why the proposed TFS lacks environmental integrity	Non-Reg	2019-08-29 22:56:43
147	Jones, Ken,	Strongly Opposed to Tropical Forest Standard	Non-Reg	2019-08-29 22:36:58
148	Hayden, Tim, Yurok Tribe	Yurok Tribe comment letter on CARB Tropical Forest Standard	Non-Reg	2019-08-29 23:29:35
149	Nowicki, Brian, Center for Biological Diversity	Tropical Forest Standard - Request for Postponement	Non-Reg	2019-08-30 08:16:18

Endorsement of the Modified California Tropical Forest Standard
Response to Additional Comments

Introduction

150	Garla, Sanjay, SEIU-USWW	Comments on CTFS	Non-Reg	2019-08-30 08:17:49
151	Fineman, Alexis,	Comments on the Tropical Forest Standard	Non-Reg	2019-08-30 08:20:18
152	Beymer-Farris, Betsy, University of Kentucky	Public Comment for Carbon Forestry Policies in California's Tropical Forest Standard	Non-Reg	2019-08-30 08:27:50
153	Durschinger, Leslie, Terra Global Capital	Letter of Support on California's Tropical Forest Standard	Non-Reg	2019-08-30 08:34:19
154	Jiwan, Norman,	Comments on 2018 Proposed Tropical Forest Standard	Non-Reg	2019-08-30 08:38:34
155	Mellon, Cynthia, Climate Justice Alliance	Reject Tropical Forest Standard	Non-Reg	2019-08-30 08:40:26
156	Smith, Erica Meta, Registered Professional Forester	Letter of Support for the Tropical Forest Standard	Non-Reg	2019-08-30 08:41:17
158	Pollet-Young, Christie, SCS Global Services	Tropical Forest Standard Comments	Non-Reg	2019-08-30 13:55:07

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2. RESPONSES TO ADDITIONAL COMMENTS

The additional comment letters responded to in this document were coded by the order in which they were received in CARB's online comment portal. Table 2-1 provides the list of additional comment letters that contain substantive environmental comments. Responses to these additional comments are provided below. Comment letters, bracketed to indicate individual comments, are provided in Attachment A.

Table 2-1: List of Comment Letters Receiving Responses				
#	Received From	Subject	Comment Period	Date/Time Added to Database
2	Hughes, Gary, Biofuelwatch	California Tropical Forest Standard and climate impacts from aviation	Non-Reg	2019-08-05 14:22:05
105	Moas, Amy, Greenpeace USA	Reject TFS	Non-Reg	2019-08-29 14:43:21
123	Hughes, Gary, Biofuelwatch	The Deficient CEQA Review Requires Rejection of CTFS	Non-Reg	2019-08-29 16:25:43
124	Kill, Jutta,	Submission regarding Consideration of Endorsement of an Updated California Tropical Forest	Non-Reg	2019-08-29 16:28:39
132	Nowicki, Brian, Center for Biological Diversity	California Tropical Forest Standard -- Reject Endorsement	Non-Reg	2019-08-29 19:21:12
135	Chan, Michelle,	48 CA organizations in strong opposition to TFS	Non-Reg	2019-08-29 21:08:56
144	Osborne, Tracey,	California's Tropical Forest Standard	Non-Reg	2019-08-29 22:58:12
157	Lohmann, Larry,	Comments on Endorsement of TFS	Non-Reg	2019-08-30 08:48:17

General Responses to Environmental Comments

To the extent commenters are claiming deficiencies in the CEQA review, CARB re-states its prior disclaimers that the entire California Tropical Forest Standard (TFS) should be viewed as (1) not a "project" subject to CEQA, and (2) even if it were a "project" subject to CEQA, it would be exempt from CEQA.

The TFS is not a “project” subject to CEQA because it is not a commitment to a course of action. The TFS is a voluntary, stand-alone program that requires no action from any entity (indeed, CARB cannot commit agencies over which it lacks jurisdiction to any action). California would not reward any activity undertaken using the TFS. As noted, if CARB ever decides to incorporate the TFS into its Cap-and-Trade Program, it would undergo a full rulemaking process subject to the Administrative Procedure Act (APA) and CEQA, and would require a vote of the Board (which has never before considered incorporating a tropical forest program into the Cap-and-Trade Program). Given that the endorsement of TFS is not linked in any way with the Cap-and-Trade Program, there would be no potential for any Cap-and-Trade related impacts as a result of endorsing the TFS.

Furthermore, even if the TFS were viewed as an “action” or “project” under CEQA, it should be exempt from CEQA’s requirements as an action taken by a regulatory agency for protection of the environment. (14 CCR § 15308.) That exemption provides:

Class 8 consists of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for the protection of the environment. Construction activities and relaxation of standards allowing environmental degradation are not included in this exemption.

(14 CCR § 15308.) CARB is a regulatory agency undertaking an authorized activity for the purpose of protecting the environment (i.e., avoiding tropical forest degradation and deforestation). Nevertheless, as noted above and in the Draft EA, given the broad public interest in the TFS, CARB voluntarily chose to undertake a more detailed environmental analysis. (Final EA at 5.) However, CARB did not need to do so, as the exemption applies to the TFS.

CARB also notes that some of the impacts claimed by commenters would occur outside the borders of California (and the United States), including claimed impacts to indigenous groups and from purported land clearing activities in other jurisdictions (CARB strongly disagrees with these claims, as discussed below). CARB is unaware of any case or law holding specifically that out-of-state and out-of-country impacts that do not affect California’s environment must be analyzed under CEQA. As such, CARB believes analysis of such impacts is not required by law. Nonetheless, in an effort to promote transparency to the fullest extent possible, CARB prepared the Draft EA and these responses to additional comments to the Draft EA, to the extent it was possible for CARB to do so. CARB’s decision to prepare those environmental documents should not be viewed as a concession that those documents are legally required nor should they be deemed a waiver of an affirmative defense of the EA in court that the Proposed Project is exempt from CEQA. (See *Del Cerro Mobile Estates v. City of Placentia* (2011) 197 Cal.App.4th 173, 179-180.) Any more detailed analysis regarding impacts in other jurisdictions would not be feasible, and would result in considerable speculation, as CARB cannot know at this time which jurisdictions may implement programs under the

Endorsement of the California Tropical Forest Standard

Response to Additional Comments

Responses to Additional Comments

TFS. Furthermore, CARB cannot guarantee the extent to which any other jurisdiction would implement its laws and take any actions needed to mitigate potential impacts, as disclosed in the Draft EA. Therefore, any further analysis of out-of-state impacts would be speculative, and it is not required by CEQA.

Comment Letters 2, 123 08/05/2019 and 08/29/2019	Hughes, Gary Biofuelwatch
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02-1 and 123-1: The commenter asserts that the Draft EA is insufficient because it fails to assess the impacts of the potential for the International Civil Aviation Organization's (ICAO) Carbon Offsetting Reduction Scheme for International Aviation (CORSIA) of utilizing the California Tropical Forest Standard. The commenter also asserts that failure to assess the ICAO CORSIA underlying design results is inadequate information for CARB to take action to endorse the Proposed Project.

Response: As the Response to Comments 35-1 from the November 2018 hearing noted in response to the same comment by Mr. Hughes,³ the Draft EA assesses the Proposed Project, which is designed as described in the Draft EA, to establish a rigorous set of criteria that existing and emerging emissions reduction programs, such as ICAO's CORSIA, could utilize to ensure the highest environmental standards. At this time, CARB cannot determine which programs may utilize the TFS, and as such, it would be too speculative to determine which programs would ultimately utilize the California Tropical Forest Standard. CARB takes no position on the design of these emerging programs, except to note that adherence to the criteria in the TFS would ensure higher levels of environmental stringency than may otherwise occur. The comment does not raise any other issues related to the specific CEQA requirements for the Draft EA and no further response is required.

The remainder of the comment letters do not raise significant environmental issues related to the Draft EA. The commenter makes conclusory statements (Comments 123-2, 123-3 and 123-4) without supplying an analytical framework supported by substantial evidence to support his conclusions. As noted earlier, when a commenter does not readily explain the basis for their comments nor submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments, the submitted comment is not supported by substantial evidence. (See 14 CCR § 15204(c).) Without citing to substantial evidence, an alleged environmental "effect shall not be considered significant" and, thus, a lead agency has no duty to respond to comments that do not raise a significant environmental effect. (Ibid.; 14 CCR § 15088(a).) While the commenter attached more than 30 documents to his letter (Comment 123), there was no effort to explain the relevance of any of the

³ https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests/final_rtc_ca_tropical_forest_standard.pdf

documents to his CEQA allegations. As such, the comments are noted and are being provided to the Board members for their consideration, but no further response to this letter is required.

Comment Letter 105 08/29/2019	Moas, Amy (Greenpeace)
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105-1: The commenter restates her argument from her October 29, 2018 letter that international offsets linked to California's Cap-and-Trade Program will worsen air quality in certain communities.

Response: See Response to Comment 65-8 and Master Response 2 from Responses to Comments document for the Draft EA released November 9, 2018.⁴

The remainder of the comment letter does not raise significant environmental issues related to the Draft EA. The comments are noted and are being provided to the Board members for their consideration, but no further response to this letter is required.

Comment Letter 124 08/29/2019	Kill, Jutta
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124-1: The commenter restates arguments made by other commenters in response to the public comment period in 2018 on the Proposed Project that the climate impacts of fossil carbon and forest carbon or not commensurate. The commenter argues that without commensurate climate impacts from both sources of carbon, the Proposed Project cannot provide an adequate carbon offsetting framework.

Response: As indicated in the Response to Comments on the Draft EA on this same issue, released on November 9, 2018,⁵ Response to Comment number 47-1 provides the basis for asserting that climate impacts from forest carbon and fossil carbon are commensurate such that the Proposed Project can provide an adequate carbon offsetting framework. See Response to Comment number 47-1, dated November 9, 2018.⁶

⁴ https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests/final_rtc_ca_tropical_forest_standard.pdf

⁵ Ibid.

⁶ Ibid.

The remainder of the comment letter does not raise significant environmental issues related to the Draft EA. The comments are noted and are being provided to the Board members for their consideration, but no further response to this letter is required.

Comment Letter 132 08/29/2019	Nowicki, Brian Center for Biological Diversity
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132-1: Commenter states that tropical forest offsets programs are vulnerable to leakage of forest-destroying activities both within and beyond partner jurisdictions. Commenter further argues that the EA does not acknowledge the Proposed Project's encouragement to intensify agricultural activities on non-forested/cleared lands could have substantial negative social and environmental implications, including forest clearing in neighboring jurisdictions.

Response: Commenter submitted a similar comment in his October 29, 2018 letter. See Response to Comment 65-7 from the Response to Comment document for the Draft EA, dated November 9, 2018,⁷ for the response to this comment.

132-2: Commenter states that the TFS lacks adequate monitoring safeguards to ensure that social and environmental harms do not occur, especially to local and indigenous communities.

Response: CARB disagrees with this comment. See Master Response 1 provided in Response to Comments document for the Draft EA, released on November 9, 2018.⁸

Comment Letter 135 08/29/2019	Chan, Michelle (Submitted on behalf of 48 California organizations)
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135-1: The commenter reasserts previous comments (Comment Letter number 22 identified in the Response to Comments to the Draft EA, dated November 9, 2018⁹) made in response to the public comment period in 2018 on the Proposed Project. Briefly, commenter argues that that tropical forest offset projects face unique problems that make them unfit to offset industrial emissions. The commenter states that the Draft EA outlines but does not adequately address these problems, which include problems of permanence and non-additionality. The commenter states that allowing these offsets results in harm through increased emissions from industrial sectors and uncertain reductions due to temporary

⁷ Ibid.

⁸ https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests/final_rtc_ca_tropical_forest_standard.pdf.

⁹ https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests/final_rtc_ca_tropical_forest_standard.pdf

sequestration. The commenter further states that because of these problems, no jurisdiction accepts tropical forest credits and therefore, allowing these credits in California's program would undermine the integrity of California's climate policy and violate the criteria of AB 32.

Response:

Since the commenter did not raise any new issues in her comment letter beyond the issues she raised in her October 29, 2018 letter, CARB responds to the comment by citing to its Response to Comment 22-1 and Master Response 2 from its Responses to Comments document for the Draft EA, released November 9, 2018.¹⁰

The remainder of the comment letter does not raise significant environmental issues related to the Draft EA. The comments are noted and are being provided to the Board members for their consideration, but no further response to this letter is required.

Comment Letter 144 08/29/2019	Osborne, Tracey
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144-1:

The commenter states that CARB should examine other ways to reduce deforestation instead of doing so through the Proposed Project. Specifically, the commenter states that CARB should consider the following alternatives to the Proposed Project: supporting local and Indigenous land rights and traditional forest management practices, zero deforestation procurement policies, banning Amazon crude, and divestment and deforestation-free investment.

Response:

As indicated in the Draft EA, CEQA requires an alternatives analysis to determine whether or not different approaches to or variations of the project would reduce or eliminate significant project impacts, within the basic framework of the objectives, a principle that is consistent with CARB's program requirements. The range of alternatives is governed by the "rule of reason," which requires evaluation of only those alternatives "necessary to permit a reasoned choice" (14 CCR Section 15126.6 (f)). Further, an agency "need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (14 CCR Section 15126.6 (f)(3)). The analysis should focus on alternatives that are feasible and that take economic, environmental, social, and technological factors into account. Alternatives that are remote or speculative need not be discussed.

¹⁰ Ibid.

Furthermore, the alternatives analyzed for a project should focus on reducing or avoiding significant environmental impacts associated with the project, as proposed.

See Master Response 1 from CARB's Responses to Comments document for the Draft EA, released November 9, 2018,¹¹ with respect to the commenter's interest in supporting local and indigenous land rights and traditional forest practices. In particular, the Proposed Project actually includes many robust social and environmental safeguard requirements designed to increase recognition of indigenous rights to territory, lands, culture, and ways of life. The TFS is also designed to incentivize reductions in the very deforestation that often displaces indigenous peoples and local communities. In fact, the TFS states: "California or any other jurisdictions or programs that choose to use this standard will only assess those implementing jurisdictions which can demonstrate a strong commitment to and successful implementation of rigorous social and environmental safeguards within their sector-based crediting programs." (TFS at p. 2.) The proposed alternative to the TFS of decoupling these safeguards for indigenous lands and way of life from the TFS fails to meet many of the main objectives of the Proposed Project including, importantly, the objective of establishing robust criteria for emissions trading systems to assess, and potentially include, jurisdiction-scale programs that reduce GHG emissions from tropical deforestation. The commenter provides no basis for arguing that the proposed alternatives of supporting the role of local and indigenous peoples, demarcation of indigenous land and local and indigenous-led forest management without also creating a verifiable system comparable to the TFS for assessing the actual emission reductions can achieve the project objective noted above. Without a robust system for assessing verifiable GHG emissions from the Commenter's alternative suggestions related to indigenous land uses, the effects of these proposed alternatives cannot be reasonably ascertained and systematic implementation of the alternatives appears speculative and remote.

See Responses to Comments 65-19 and 69-2 from CARB's Responses to Comments document for the Draft EA, released November 9, 2018,¹² with respect to the commenter's interest in alternatives regarding zero deforestation policy adoption and banning Amazon crude oil imports.

¹¹ https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests/final_rtc_ca_tropical_forest_standard.pdf

¹² https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests/final_rtc_ca_tropical_forest_standard.pdf

CARB has no jurisdiction over controlling banks and investors in their investment strategies such that it can force those entities to divest from investments that support deforestation practices. Thus, CARB finds that the Commenter's alternative related to requiring bank and investor divestment from companies associated with tropical deforestation is infeasible because CARB has no legal means to accomplish this suggested alternative.

The remainder of the comment letter does not raise significant environmental issues related to the Draft EA. The comments are noted and are being provided to the Board members for their consideration, but no further response to this letter is required.

Comment Letter 157 08/30/2019	Lohmann, Larry The Corner House
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157-1: The commenter generally reasserts a recurring argument from some commenters that the Proposed Project will worsen climate change through the use of offset credits and will result in high emissions in disadvantaged communities.

Response: Since this issue has been raised more than once, CARB prepared a master response to this issue when it responded to comments from its public comment period for the Draft EA in 2018. See Master Response 2 from Responses to Comments document for the Draft EA released November 9, 2018¹³ as a response to this comment.

The remainder of the comment letter does not raise significant environmental issues related to the Draft EA. The comments are noted and are being provided to the Board members for their consideration, but no further response to this letter is required.

¹³ https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests/final_rtc_ca_tropical_forest_standard.pdf

ATTACHMENT A

ADDITIONAL COMMENT LETTERS

2

June 19, 2019

Governor Gavin Newsom
State of California
State Capitol
1303 10th Street, Suite 1173
Sacramento, CA 95814

Chair Mary Nichols
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: California Tropical Forest Standard and climate impacts from aviation

Honorable Governor Newsom and Honorable Chair Nichols:

We write to express our concern about the dramatic rise in greenhouse gas emissions from the aviation sector and the lack of a transparent and science-based plan for the State of California to demonstrate global leadership on this critical issue. Without understanding the full implications, the state is on the verge of putting a stamp of approval on an aviation industry designed scheme to disguise the anticipated future emissions growth in the sector with dubious offsets and biofuels that pose a serious new risk to forests and thereby the climate. We ask you to reject the endorsement of the California Tropical Forest Standard (CTFS) that is currently under discussion at the Air Resources Board (ARB). This is an important opportunity to exercise global leadership on one of the increasingly dire threats to future climate stability: the global aviation sector.

Aviation is long recognized as a severe climate polluter, and the problem is only getting worse. The most recent edition of the ARB emissions inventory provides sobering evidence that aviation overall (including instate, national/domestic and international aviation) has become one of the sectors in California with the fastest emissions growth¹ – at a time when reducing real emissions has never been more important. **Of greatest concern, according to the ARB emissions inventory, which currently includes data through 2016, international aviation emissions from flights originating in California have spiked dramatically in the last 5+ years, rising by nearly 40% to climb to an all-time record high.** This reality cannot be ignored. Even though emissions from international aviation are outside the regulatory scope of California state authorities, great care must be taken in how this climate threat is addressed, to avoid unleashing a chain of unintended consequences that will threaten communities and the climate.

¹ https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_ipcc_sum_2000-16.pdf

The International Civil Aviation Organization (ICAO), which is a specialist United Nations (UN) organization, is non-transparent, heavily dominated by the global aviation industry, and doesn't admit non-governmental organization observers to its main decision-making body, its Council. ICAO has decided to pursue "carbon neutral growth" for addressing the climate impacts of global aviation after 2020. Its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is the mechanism that has been devised to allow the aviation industry to achieve it. The two key mechanisms of CORSIA are carbon offsetting and "alternative aviation fuels."

The CTFS is a tropical forest-based carbon offset protocol that the ARB has explicitly proposed to endorse for use with CORSIA, as well as eventual use with the California Cap-and-Trade Program (Western Climate Initiative, Inc.). The proposal for global aviation to rely on offsetting to address climate impacts from future emissions growth is highly controversial. A pertinent example of this is the fact that in January 2018, Virgin Atlantic pulled out of a forest carbon offset project in Cambodia after high levels of deforestation as well as serious human rights abuses were revealed in the project area². This is far from an isolated case.

In fact, in June 2018, an open letter signed by 96 civil society organizations called on all members of the ICAO Council to reject the CORSIA mechanism³. The letter explains why CORSIA's plans are a boon for airlines, a disaster for the climate, and a threat to forests and communities.

Recently, ARB officials have received a letter⁴ from Members of the European Parliament (MEPS) in which the MEPS clearly stated that the endorsement of the CTFS by the ARB for utilization in CORSIA would negatively impact the environmental integrity of climate policy in Europe and around the world, including California.

Another major concern with CORSIA is the focus on "alternative aviation fuels," primarily aviation biofuels.

Research shows that palm oil is the only economically and technically feasible feedstock for large-scale aviation biofuels, based on existing technologies⁵. The rapid growth of palm oil production is a major driver of deforestation in South East Asia, and increasingly in different countries in Latin America and Africa. It is the cause of significant land-grabbing and conflicts with local communities and Indigenous Peoples. That is why the ARB has rightfully taken steps to keep palm oil products out of pathways for use in the Low Carbon Fuel Standard (LCFS). Given the extremely weak standards proposed for CORSIA, the scheme is highly likely to allow

² <https://www.fern.org/news-resources/uneared-credit-why-aviation-industry-forest-offsets-are-doomed-to-fail-184/>

³ <https://www.biofuelwatch.org.uk/2018/icao-letter/>

⁴ <https://www.politico.eu/wp-content/uploads/2019/04/Open-letter-on-the-Tropical-Forest-Standard-EU-Parliament.pdf>

⁵ <https://www.biofuelwatch.org.uk/2017/aviation-biofuels/>

palm-oil derived biofuels to be characterized as 'sustainable aviation biofuels', thus creating a large new global demand for palm oil⁶.

The ARB, by considering endorsing an offsets protocol for use in CORSIA, and thus putting a stamp of approval on CORSIA itself, could be unwittingly unleashing forces that instigate a spike in demand for palm-oil derived biofuels.

We note that, so far, ARB has not described or considered potential impacts of CORSIA, nor assessed the scientific and social viability of the scheme as part of its legally required duties to evaluate CTFS under California's bedrock environmental and public participation law, the California Environmental Quality Act (CEQA).

2-1

It is for this reason that we write to you to urge you to reject the CTFS outright. Instead of supporting CORSIA, the State of California should be backing and implementing policies to reduce and reverse the growth in aviation, which is vital for avoiding the worst impacts of the climate crisis.

Thank you for your attention to this letter. Do not hesitate to contact us if we can be of service to you on this matter.

Signed,

Anne Petermann
Executive Director
Global Justice Ecology Project

Anuradha Mittal
Executive Director
Oakland Institute

Ara Marderosian
Executive Director
Sequoia Forestkeeper

David Braun
Director
Rootskeeper

David Huerta
President
SEIU United Service Workers West

⁶ <https://www.malaymail.com/news/malaysia/2019/04/27/malaysia-can-help-reduce-aviation-industry-carbon-footprint-with-palm-oil-b/1747454>

Frances Aubrey
Co-convener
Alameda County Interfaith Climate Action Network

Jan Warren
Interfaith Climate Action Network of Contra Costa County

Katherine Black
Benicians for a Safe and Healthy Community

Kathy Kerridge
Good Neighbor Steering Committee

Laura Neish
Executive Director
350 Bay Area

Lou-Anne F. Makes-Marks, Ph.D.
Sacred America

Osprey Orielle Lake
Executive Director
Women's Earth and Climate Action Network (WECAN)

Paul Hughes
Executive Director
Forests Forever

Pennie Opal Plant
Idle No More – SF Bay

Tia Oros Peters
Executive Director
Seventh Generation Fund for Indigenous Peoples

Tom BK Goldtooth
Executive Director
Indigenous Environmental Network

Steve Nadel
Coordinator
Sunflower Alliance

Rev. Will McGarvey
Executive Director
Interfaith Council of Contra Costa County

Brian Nowicki
California Climate Program Director
Center for Biological Diversity

Amy Moas, Ph.D.
Senior Forest Campaigner
Greenpeace USA

Jeff Conant
Senior International Forests Program Director
Friends of the Earth – US

Gary Graham Hughes
California Policy Monitor
Biofuelwatch

123

August 29, 2019

Chair Mary Nichols
California Air Resources Board
1001 I St., Sacramento, CA 95814

Submitted electronically via
https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=tfs2019&comm_period=N

Re: Deficient Review of California Tropical Forest Standard Under California Environmental Quality Act Requires Rejection of Endorsement of Standard

Honorable Chair Nichols:

This letter is provided as comment on the revised version of the California Tropical Forest Standard (<https://ww3.arb.ca.gov/cc/ghgsectors/tropicalforests.htm>) (CTFS) as developed by the California Air Resources Board (ARB); on the Environmental Analysis (EA) of the standard; and on related documentation made available under the framework of the California Environmental Quality Act (CEQA).

Our organization Biofuelwatch has a long history of working to address the environmental and social harms associated with emissions trading schemes, and in particular we have engaged on the CTFS issue because of the explicit intent of the ARB to see the CTFS utilized by the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). It is with the experience and knowledge gained from our long history of engagement on these issues that we provide this letter, and importantly, provide the accompanying documentation for inclusion on the public record for this matter.

The irregularities surrounding the development and review of this proposed standard are numerous and are cause for alarm. In fact, the mere existence of the proposed CTFS is irregular in that there is no mention of the development of a protocol of this nature included in the 2017 Scoping Plan, and there is no existing legal legislative mandate for the ARB to develop a tropical forest-based carbon credit scheme.

Concerns from the environmental justice community have also been rudely dismissed. Remarkably, in ARB staff efforts to suggest that this scheme adheres to the values of environmental justice, the ARB made direct reference in the "International Sector-Based Offsets" White Paper of October 2015 to the importance of engaging with the ARB Environmental Justice Advisory Committee (EJAC) in developing a REDD-based offset credit for the California carbon market.

Public statements from the ARB about listening to the EJAC aside, the ARB has totally and completely ignored **the final recommendations of the EJAC to not pursue a tropical forest-based offset scheme.**

On this basis alone the directors of the ARB must reject endorsement of the CTFS.

Failure to adhere to the recommendation of the EJAC on this matter would be a profound gesture of the ARB only listening to the EJ community when it is convenient to do so – a defining characteristic of institutional environmental racism, and the type of institutional failing that the ARB was mandated to address with the passage of the landmark AB 32 Global Warming Solutions Act.

Another serious concern is that the process since the heated November 16, 2018 ARB hearing on the CTFS matter has been opaque and anti-democratic. Contrary to the description posted on the ARB webpage for CTFS regarding how “CARB continued to assess issues raised by stakeholders and received additional input from members of the Assembly” the process was neither public nor inclusive. No public record of this process exists, and concerned members of the public have no means to access or review the process that was pursued. Yet the ARB refers to this process as justifying a staff recommendation to the directors to endorse the standard. This is irregular at best.

Though the resolution passed last November at the ARB board meeting made specific mention of the Joint Legislative Committee on Climate Change Policies (see transcript in accompanying materials), a legitimate, formal, transparent and publicly noticed hearing on this matter never occurred, as requested by many parties concerned about the standard. Instead the matter was relegated to an irregular “stakeholder process” that placed severely deficient and narrow handrails on the discussion of the matter.

Directors of the ARB should be concerned and alarmed about the manner in which this matter was shuttled through a “faux-review process” under the auspices of an exclusive group of Members of the Assembly who failed to engage other informed members of the legislature on these matters.

Such was the difference of opinion and level of concern about the inadequacies of the discussion regarding the deficiencies of the CTFS that a California State Senator was compelled to compose and send his own letter to the ARB communicating opposition to endorsement of the CTFS.¹

¹ This letter from the Senator opposing endorsement of the CTFS is included in the package of material submitted with this letter for inclusion on the public record on the CTFS proposal, as are many more documents related to the irregular “stakeholder process.”

The obvious conclusion for board members in now having to wrestle with this highly charged controversy is that the CTFS matter should have been more thoroughly vetted by the legislature, affected populations and the concerned public, **as intended by the resolution passed at the close of the hearing on this matter last November.**

This letter from the Senator opposing endorsement of the CTFS cited here is included in the package of material submitted herewith for inclusion on the public record on the CTFS proposal, as are many more documents related to the irregular "stakeholder process."

As though this series of events would be sufficient for directors to not endorse the CTFS at this time, there are now important questions being raised regarding verified reports of an ARB board director, Hector de La Torre, and ARB staff, scheduling and attending private meetings with legislators to garner support for the standard, and lobby for the CTFS by responding to the documented concerns and criticism of the standard by the opposition. This appearance by a board director with ARB staff in private meetings with legislators regarding a matter currently before the board is highly irregular. This dynamic is noted in this letter as a development of factual interest for directors to fully understand the ongoing irregularities of the process surrounding the CTFS.

In this vein, it is worth reiterating in detail that the CEQA review of the CTFS is deficient. Directors of the board should be forewarned that the EA fails to inform the decision-making responsibility of the board of directors in that much relevant and crucial information which has been made available to the ARB has not been included in materials provided for directors to familiarize themselves with the complexities, historical precedents and evidence based assessments of the policy proposal. Thus the directors do not have the frank and transparent assessment of the standard that is necessary for making an informed decision. That is a fatal failing of the CEQA review of this matter.

For the sake of brevity, the following points provide examples of the failures of the environmental review of the CTFS to address important topics:

- Failure of the EA to address climate impacts from aviation nor the proposed aviation industry plan for climate, while implicitly describing that utilization of the CTFS by ICAO CORSIA as a desirable outcome from the endorsement of the CTFS. Endorsing CTFS thus becomes an implicit endorsement of CORSIA. The EA fully ignores CORSIA, without providing the most fundamental description of the scientifically dubious plan nor the probable impacts resulting from endorsement of CTFS, including a foreseen explosion in demand for palm oil-based aviation biofuels.

123-1

- Failure of the EA to provide adequate analysis of cumulative impacts. The EA analysis of cumulative impacts fails to provide any evidence to support assertions regarding the insignificance of impacts of endorsing the standard. 123-2
- Failure of the EA to provide an adequate "alternatives analysis." The alternatives analysis fully fails to provide a meaningful discussion of alternatives, and fails to provide any basis for the assumptions contained in the statements regarding a "no project" alternative. 123-3
- Failure of the EA, and thus the responsible agency, to take responsibility for the action and for the impacts of the action. The ARB quest for exemption from CEQA is ultimately the full expression of the agency willful denial and obfuscation of the evidence that demonstrates the harms that are to be associated with the CTFS scheme, and the incapacity of the standard to prevent harm, or offer any significant redress when harm occurs, which is inevitable due to the conceptual basis of the scheme. 123-4

Taking these points regarding the irregularities of the process and the deficiencies of the environmental review process into consideration with the other evidence exposing the risks and dangers embedded in this proposed action will provide directors the insight they need to reject endorsement of the CTFS.

Please note that this letter has been submitted in a package that includes more than 30 documents that are relevant to this letter, and to the arguments against endorsing CTFS.

Thank you for your attention to this letter.

Sincerely,



Gary Graham Hughes
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**List of Documents Submitted for Public Record on
California Tropical Forest Standard**

Subject Matter: Transcript of Nov 16, 2018 Air Resources Board public meeting on consideration of endorsement of CTFS, including irregular resolution

ARBmeetingtranscript_111618.pdf

Subject Matter: Documents related to irregular "stakeholders process" facilitated by Assemblymember E. Garcia et al.

KM talking points handout_Jan2019.pdf

Memo - Environmental Integrity_BarbaraHaya_Jan2019.pdf

Safeguards Limits_Feb 1.pdf

Notes from TFS Meeting Sac Jan 29.pdf

ARB EO Richard Corey Comments.pdf

TFS_suggestions_clean_03-27 (3).docx

6.3.2019 TFS Stakeholder Meeting Agenda.pdf

CTFS Stakeholder letter 2019 May31.pdf

Subject matter: Correspondence between legislators and ARB and CalEPA

2019-05-08 offsets letter to CalEPA & ARB.pdf

2019-06-03_Dukeoffsetsletter.pdf

2019-06-13_ARBCalEPAltr_offsets.pdf

2019-06-17 E Garcia TFS letter to ARB 2.pdf

2019-08-13 Offsets Wieckowski ltr ARB.pdf

Subject matter: communication from indigenous groups in Acre concerned about process and lack of benefits sharing related to REDD projects

Acre indigenous letter to CA Germany 5 15 19.pdf

Indigenous-letter-May-2019-Acre-Amazonas.pdf

Subject matter: Media coverage and investigative journalism reports regarding CTFS/REDD and related offsets issues

California split over carbon trading plan for tropical forests - Reuters.pdf

An (Even More) Inconvenient Truth_ProPublica.pdf

These 4 Arguments Can't Overcome the Facts About Carbon Offsets for Forest Preservation — ProPublica.pdf

California Legislators Urge Caution, but Greenlight a Plan That Could Lead to the Widespread Use of Forestry Offsets — ProPublica.pdf

If Carbon Offsets Require Forests to Stay Standing, What Happens When the Amazon Is on Fire_ProPublica.pdf

Carbon Pulse August-14-2019 WieckowskiltrtoARBreTFS.pdf

CarbonPulse_EULawmakersUrgeCaliforniaToRejectREDDFearingWiderUseByAirlinesUnderCORSIA.pdf

Landowners are earning millions for carbon cuts that may not occur - MIT Technology Review.pdf

Whoops! California's carbon offsets program could extend the life of coal mines. - MIT Technology Review.pdf

Managing-Uncertainty-in-Carbon-Offsets-SLS-Working-Paper.pdf

United Airlines Expands Commitment to Biofuels.pdf

Subject Matter: Misc letters related to CTFS and Indigenous Rights Report Documenting Abuses of REDD+

MRG-Key-Trends-Report-2019-FINAL.pdf

Open Letter by Swift Foundation – Swift Foundation.pdf

Open-letter-on-the-Tropical-Forest-Standard-EU-Parliament.pdf

Sacred America Letter to Governor Newsom.pdf

OaklandInstitute_evicted-carbon-credits_report.pdf

2019.08.29 CARB CEJA TFS PRA .pdf

August 29, 2019

Chair Mary Nichols
California Air Resources Board
1001 I Street
Sacramento, California

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Re: Updated California Tropical Forest Standard

Dear California Air Resource Board:

Greenpeace USA would like to formally express our strongest opposition to the Updated California Tropical Forest Standard (Updated Standard) and the specific criteria California Air Resources Board (CARB) has set forth for linking a jurisdictional sector-based crediting program to reduce emissions from tropical deforestation with an emissions trading scheme.

Greenpeace USA employs scientists and issue experts in our quest to protect forests, oceans, our climate and our democracy. Millions of people around the world have taken action with Greenpeace offices in a shared quest for a green and peaceful world. Greenpeace's evaluation of the Updated Standard is grounded in both impacts we are observing in California, as well as what Greenpeace offices have documented *in situ* in tropical forest regions where tropical forest carbon offset projects have been attempted.

We submitted a comment letter during the public comment period of the Draft California Tropical Forest Standard in Fall 2018. Much of our detailed opposition is still relevant as the updates to the standard have been cosmetic at best, providing no structural changes, providing no additional assurances and in no way addressing our previous concerns. We submit this detailed opposition for the record yet again, as an addendum to this letter.

We urge CARB to abandon the Updated Standard and once and for all halt development of any elements of a future international, sector-based forestry offset program, especially for linkage with California's or any other cap and trade program. Instead, attention should be devoted to urgently and dramatically reduce emissions at the source and transition California to a clean energy economy.

In November of 2018, CARB delayed a vote on this issue given substantial opposition displayed before and during the public hearing in Sacramento. This letter outlines some of the developments that have occurred in the last nine months and how none of them provide any amount of certainty or credibility to the Updated Standard. The sooner CARB realizes that devoting more hours and days and years to this idea of international forest offsets is doomed to fail, the sooner real progress can be made on legitimate climate protection.

One of the largest environmental moments of the last nine months is undoubtedly the fires that are currently burning in the Amazon. These fires not only highlight the lack of assurances that the Updated Standard can make around permanence, but it also highlights how fragile the government programs are that the Updated Standard relies. Fires in the Brazilian Amazon are up more than 80% from last year.¹ This has been linked to the anti-environmental policies of the new Jair Bolsonaro administration, including undermining longstanding environmental enforcement institutions and threatening transparent monitoring of deforestation. His administration's radical shift pulls into question whether or not we can count on any tropical forest offset project to remain standing.

If one election can usher in such radical substantial changes to the transparency and political process, then no carbon credits can promise any reasonable amount of permanence and no government can be reasonably expected to run effective jurisdictional programs under the Updated Standard for any sustainable length of time. We need tangible reductions in greenhouse gas emissions and not vulnerable wishful thinking.

Proponents of the Updated Standard and REDD in general will argue that the situation in the Amazon provides evidence for the passage of the Tropical Forest Standard. Recently, Norway and Germany had to freeze funds to Brazil intended for Amazon forest conservation.² These funds were not only unable to prevent the dismantling of forest protection underway in Brazil, but this move begs the question what would happen in the offset context when the offset carbon has already been emitted?

In May 2019, academic researchers found that California's own forestry offset protocol had inflated the amount of emissions reductions that had occurred. While experts on both sides are still debating the extent of inaccurate assumptions around baselines and leakage rates, the outcome is still the same -- if this type of uncertainty at best, and error at worst, can take place in California, what assurances can CARB reasonably rely on that they won't happen with projects in other jurisdictions? We know that polluters who will buy these credits will absolutely be polluting more, but we have nowhere near the same assurance that the emissions reductions under the Updated Standard will be present or permanent.

The Green Finance Observatory also published a report about unresolvable issues with carbon markets that highlights their vulnerability and thus inability to ever meet their environmental objectives.³ Scientific uncertainty, high regulatory risk and poor environmental integrity in many areas of these markets translate into a high risk of rule changes and abrupt repricing, while seriously drawing questions about their ability to meet their objectives.

In April 2019, EU lawmakers also urged CARB to reject the Updated Standard. They argued that "the TFS would water down climate ambition in California..." and that it would "replace real emissions reductions with the purchase of credits that at best do little to address climate change and at worst lead to increased emissions and human rights violations on the ground."⁴ This

¹ <https://abcnews.go.com/International/experts-explain-brazilian-wildfires-devastating-save-rain-forest/story?id=65194500>

² <https://www.reuters.com/article/us-brazil-environment-norway/norway-stops-amazon-fund-contribution-in-dispute-with-brazil-idUSKCN1V52C9>

³ <https://greenfinanceobservatory.org/wp-content/uploads/2019/03/50-shades-carbon-final.pdf>

⁴ <http://carbon-pulse.com/73673/>

dramatic and clear language from these lawmakers should cause CARB the utmost caution and further cast doubt on the Updated Standard.

Investigative journalists also looked at forest carbon offset projects going back two decades around the world, using on the ground visits, academic articles, government reports, technical documents, and satellite imagery. “In case after case, [they] found that carbon credits hadn’t offset the amount of pollution they were supposed to, or they had brought gains that were quickly reversed or that couldn’t be accurately measured to begin with. Ultimately, the polluters got a guilt-free pass to keep emitting CO₂, but the forest preservation that was supposed to balance the ledger either never came or didn’t last.”⁵ This is real historical data and CARB has not done enough to ensure the Updated Standard will not follow the same failed path.

More than 100 groups sent a clear message of opposition to oil giants Shell and Eni’s plans to use forest credits to offset some of their carbon emissions.⁶ This clear market signal that huge polluters will jump on the chance to use these forest offset credits means that the harm to local California communities where pollution will continue and grow is not hypothetical. This harm to human health is real while the credits these polluters will buy are shrouded in uncertainty and opposition.

These academic, journalistic and civil society contributions to the debate around the Updated Standard have filled the last nine months, since the last CARB hearing on the Draft Standard, with more and more evidence that CARB should abandon the Tropical Forest Standard all together. However, the flawed stakeholder process in the California Legislature and its outcomes are an even more powerful signal that the Updated Standard must be rejected. During the November CARB hearing, a clear signal was sent that CARB would like a public hearing of California’s Joint Legislative Committee on Climate Change Policies to take place in order to address this issue. However instead of that process, essentially one Assemblymember organized a deeply flawed, exclusive and shallow stakeholder process. The failure of this more formal process, means that the deep divisions, scientific debate, uncertainty and emotions that were on full display during the November 2018 CARB hearing, have only grown over the last nine months.

Additionally, while the outcome of the stakeholder process was essentially a greenlight to CARB to move forward, there was deep caution in that approval, along with clear guidance that CARB would need to exercise “vigorous and proactive monitoring” of the implementation of the Updated Standard, in order to provide even the minimal assurances that the offsets are valid. Is California ready and willing to engage in such monitoring of all jurisdictions and trading schemes that use the Tropical Forest Standard outside of California? If the answer is not a firm yes, then the Updated Standard must be rejected. Additionally, the letter that Senator Wieckowski sent to CARB in opposition of the Updated Standard also provides clear evidence

⁵ <https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/>

⁶ <https://redd-monitor.org/2019/05/14/ngos-oppose-the-oil-industrys-natural-climate-solutions-and-demand-that-eni-and-shell-keep-fossil-fuels-in-the-ground/>

that the California legislature is split on this issue – much like the scientific and environmental communities.⁷

The last nine months, along with the updates made to the Draft Standard, have done nothing to validate CARB moving forward with the Tropical Forest Standard nor address fundamental efficacy concerns outline below. For this and all of the reasons in the addendum to this letter, we urge CARB to abandon the Updated Standard and once and for all halt development of any elements of a future international, sector-based forestry offset program, especially for linkage with California's cap and trade program or any other emissions trading system including CORSIA. And to be clear, Greenpeace fully supports other global efforts to reduce deforestation and forest degradation, as well as calls for reforestation. If protection of the forest is a goal, there are real tested concepts that are working today that do not involve unproven offsets.

Sincerely,



Annie Leonard
Executive Director
Greenpeace USA

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⁷ <https://carbon-pulse.com/80536/>

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Addendum

October 29, 2018

Chair Mary Nichols
California Air Resources Board
1001 I Street
Sacramento, California
Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Re: Draft California Tropical Forest Standard

Dear California Air Resource Board:

Greenpeace USA would like to formally express our opposition to the Draft California Tropical Forest Standard (Draft Standard) and the specific criteria California Air Resources Board (CARB) has set forth for linking a jurisdictional sector-based crediting program to reduce emissions from tropical deforestation with an emissions trading scheme. Greenpeace USA employs scientists and issue experts in our quest to protect forests, oceans, our climate and our democracy. Millions of people around the world have taken action with Greenpeace offices in a shared quest for a green and peaceful world. Greenpeace's evaluation of the proposal is grounded in both impacts we are observing in state as well as what Greenpeace offices have documented *in situ* in tropical forest regions where tropical forest carbon offset projects have been attempted.

We urge CARB to abandon the Draft Standard and finally halt development of any elements of a future international, sector-based forestry offset program, especially for linkage with California's cap and trade program. Instead attention should be devoted to urgently and dramatically reduce emissions at the source and transition California to a clean energy economy. This letter outlines the numerous reasons why the Draft Standard must not be allowed to move forward.

Offsets of any kind are counterproductive to the urgent action needed on climate change

The IPCC Special Report on Global Warming of 1.5°C, released on October 8, 2018, establishes that urgent, dramatic and unprecedented changes to all aspects of our society is needed now, if the planet has any hope of avoiding the catastrophic impacts of climate change.⁸ This level of urgency is fundamentally noncompliant with the concept of carbon emission offsets of any kind, but especially to jurisdictional international forest offsets. The best scientists in the world are

⁸ Intergovernmental Panel on Climate Change. (2018). Climate Change of 1.5 Degree Celsius. <http://www.ipcc.ch/report/sr15/>

telling us in no uncertain terms that we need to dramatically curb greenhouse gas emissions AND immediately bring down deforestation rates around the world. We do not have the luxury to choose between the two. We cannot simply allow polluters to keep on polluting and hope that forests in a far away place will make that ok. The numbers just do not add up. They don't add up for California and they don't add up globally.

Jurisdictional forestry offset projects are unlikely to ever actually secure lasting climate benefits

While offsets as a whole are inherently problematic to the goal of avoiding catastrophic climate change, jurisdictional forestry offset projects have a number of unique, significant and yet unsolved issues. CARB staff has been working on developing this standard for nearly a decade, but there is a reason it has taken so long and why no one else in the world has done it yet. It is complex, including elements related to sector-based crediting program scope, reference levels, crediting baselines, reporting requirements, reversals, leakage risk, credit tracking, verification, and social and environmental safeguards. Many of these issues are tackled in the Draft Standard, but not adequately addressed. Many of the the alleged 'solutions' to these issues, as proposed in the Draft Standard, have been tried and to date have done very little to actually resolve the fundamental and inherent problems with forestry offset projects. And even if real solutions were found to these complexities, forestry offset projects do nothing to address the real drivers of deforestation and do nothing to combat natural forest disturbances, such as fires, droughts and pests, that can overwhelm and invalidate any human-induced emission reduction actions.

There has yet to be one forestry offset project proven to reduce greenhouse gas emissions with permanence, additionality and no leakage, while CARB seems to ignore the countless examples of the inadequacies of forest offset projects to date. Even the project previously heralded as exemplary by CARB in your 2015 white paper,⁹ the Uddar Meanchey project in Cambodia, has since been extensively documented to have failed to meet objectives, to the point that private company partners no longer will buy its credits.¹⁰

Ultimately, end-of-pipe greenhouse gas emissions are certainties with permanent harm, while forest carbon credits are uncertain, often temporary, and rife with other intractable problems. No jurisdiction in the world accepts forestry credits into its compliance market, and there is a very real reason for this. In the end, the aggregation of projects that have failed to deliver real climate benefits deems further development of these projects to simply be unsound public policy.

International offsets exacerbate environmental harms on the most disadvantaged communities in California.

⁹ California Air Resources Board. (2015). Staff White Paper: Scoping next steps for evaluating the potential role of sector-based offset credits under the California Cap-and-trade Program, including from jurisdictional 'reducing emissions from deforestation and degradation' programs.

<https://www.arb.ca.gov/cc/capandtrade/sectorbasedoffsets/ARB%20Staff%20White%20Paper%20Sector-Based%20Offset%20Credits.pdf>

¹⁰ Fern. (2017). Unearned Credit: why aviation industry forest offsets are doomed to fail.

https://fern.org/sites/default/files/news-pdf/Unearned%20Credit_0.pdf

Even if CARB will not immediately be able to link its jurisdiction-scale forestry programs to California's cap and trade, that is clearly the ultimate intent. The first sentence of the Draft Standard admits the goal is to link sector based projects with "an emissions trading system (ETS), such as California's Cap-and-Trade Program."¹¹

Allowing an international offset program will by definition increase emissions in California by allowing big polluters to release more greenhouse gases and other pollutants. A July 2018 peer reviewed, scientific journal article evaluated the impacts of California's Cap and Trade Program and it found that after it was implemented, most regulated local facilities, not only increased their greenhouse gas emissions, but a majority also increased their particulate matter, volatile organic compounds and air toxic emissions during this time period.¹²

In regular evaluations of air quality in the US, cities in California overwhelmingly are found at the tops of the lists for different pollutants.¹³ International offsets linked to California's Cap and Trade Program will only make many of these communities' bad air quality even worse. Local residents will pay the highest price as human health impacts from air quality are well documented.¹⁴

These impacts however are not shared equally. The same peer reviewed scientific article evaluating California's Cap and Trade, also found that the neighborhoods closest to the facilities that increased their greenhouse gas and co-pollutant emissions after Cap and Trade was implemented, had higher proportions of people of color, and higher proportions of poorer, less educated, and linguistically isolated residents, as compared to neighborhoods further away from these facilities.¹⁵

The result is clear. The Draft Standard when linked to any emissions trading system, including California's Cap and Trade Program, will disproportionately impact disadvantaged communities. In Richmond for example, an incredible majority of the people living within a kilometre of Chevron's refinery are people of color. Thus the vast majority of the people that Chevron's increased pollution will impact, will be people of color. And that's exactly what environmental racism looks like.

¹¹ California Air Resources Board. (2018) California Tropical Forest Standard. Page 3. https://www.arb.ca.gov/cc/ghgsectors/tropicalforests/draft_ca_tropical_forest_standard.pdf

¹² L. Cushing, et. al. (2018). *Carbon Trading, Co-Pollutants, and Environmental Equity: Evidence from California's Cap-and-Trade Program (2011-2015)*. PLoS Med 15(7). <http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002604#sec016>

¹³ American Lung Association. (2018). State of the Air 2018. http://www.lung.org/local-content/california/documents/state-of-the-air/2018/sota-2018_ca_most-polluted.pdf

¹⁴ Environmental Protection Agency. (n.d.). Managing Air Quality - Human Health, Environmental and Economic Assessments.

<https://www.epa.gov/air-quality-management-process/managing-air-quality-human-health-environmental-and-economic>

¹⁵ L. Cushing, et. al. (2018). *Carbon Trading, Co-Pollutants, and Environmental Equity: Evidence from California's Cap-and-Trade Program (2011-2015)*. PLoS Med 15(7). <http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002604#sec016>

It is time for California to become a real leader on climate and public health issues rather than one seeking to provide its most polluting industries with yet another loophole to continue to perpetuate very real harm on local disadvantaged communities and to our global climate.

The Draft Standard means local communities and Indigenous People will face enormous impacts at best and human rights violations at worst.

Real world implementation of projects aimed at reducing emissions from deforestation and degradation has been taking place around the world for almost a decade. The risks to local communities and Indigenous Peoples in the locations of these projects is not theoretical, it is proven. These projects have brought coercion, violence, lost livelihoods, reduced food security, restrictions from traditionally and culturally important lands and forced evictions.¹⁶ The displacement these projects can bring to local and indigenous communities carries enormous human consequences.¹⁷

Now, CARB has attempted to include some social and environmental safeguards into the Draft Standard to mitigate these well documented impacts, however they are far too vague, weak and hard to enforce, rendering them unable to mitigate the very real risk of human rights abuses.

The vague requirement for consultation in the Draft Standard is nowhere near the fundamental and internationally recognized right that Indigenous People and local communities have to Free Prior and Informed Consent (FPIC). Briefing local people about the project, setting up a website and getting input on design is not the same thing as formally requiring that local people are not only informed, but are done so free of coercion and that they can give or withhold their consent to changes on their land. All of the criteria outlined in the Draft Standard are well intentioned, but are fundamentally flawed without the paramount status of consent.

However it is important to point out that even if CARB were to amend the social and environmental safeguards to include FPIC and other more clear and stringent requirements, there would still be unacceptable levels of risk of corruption, conflicts of interest and human rights abuses that California certainly cannot police. How will social safeguards of any strength be enforced and monitored by each jurisdiction? The remote forest locations for these projects at a very minimum will make monitoring, enforcement and verification nearly impossible. Not to mention that true local participation and empowerment could only come from ideal local governance processes and a history of fundamentally open and participatory land-use planning processes at the national level; not once have such conditions been in place during the implementation of a forest offset project and it is impossible to believe they will in the future.

¹⁶ World Rainforest Movement. (2015). REDD: A Collection of Conflicts, Contradictions and Lies. https://wrm.org.uy/wp-content/uploads/2014/12/REDD-A-Collection-of-Conflict_Contradictions_Lies_expanded.pdf

¹⁷ Friends of the Earth. (2017). REDD+, The Carbon Market and California-Acre-Chiapas Cooperation: Legalizing Mechanisms of Dispossession. https://www.foei.org/wp-content/uploads/2018/01/REDD_The-carbon-market-and-the-California-Acre-Chiapas-cooperation.pdf;

At the heart of it, the Draft Standard is really about altering human activity, which then must be monitored and enforced for decades – even generations – if the promised carbon storage is to be delivered. Even with the best safeguards, local, Indigenous and forest dwelling people will face disruption to their ways of life, cultural practices, and traditional livelihoods, all so that companies can keep polluting.

CARB and the State of California have not done enough to ensure that the Draft Standard will facilitate real and meaningful social and environmental safeguards. Instead, the Draft Standard tries to pass off vague language as substantive protections that are doomed to fail. CARB and the State of California has ignored inconvenient facts to continue to pursue international offsets. If ever human rights abuses are a reasonable risk stemming from a California policy, then we are doing something very wrong.

Conclusion

For all of these reasons, we urge CARB to abandon the Draft Standard and once and for all halt development of any elements of a future international, sector-based forestry offset program, especially for linkage with California's cap and trade program or any other emissions trading system. CARB should immediately shift attention to urgently and dramatically reduce carbon emissions at the source and transition California to a clean energy economy. And to be clear, Greenpeace fully supports other global efforts to reduce deforestation and forest degradation, as well as calls for reforestation. If protection of the forest is a goal, there are real tested concepts that are working today.

Sincerely,



Annie Leonard
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Updated 30 July 2019 version of the California Tropical Forest Standard will not prevent false REDD+ offset credit issuance

29 August 2019

Jutta Kill

Dear members of the California Air Resources Board,

I submit these comments as an activist and biologist whose action-oriented research aims to support social movements in analysing and assessing new tendencies in nature conservation, environmental protection and international forest policy and their impact on communities for whom forests provide a home and livelihood. My research over the course of more than 25 years has highlighted the role of voluntary certification schemes, carbon markets and the new economy of nature in maintaining ecologically unequal trade, and the associated corporate abuse of human rights and rights to land and use of peoples' traditional territories. Since 2000, I have documented the local impacts of numerous climate/carbon and biodiversity projects that market compensation credits. So-called REDD+ projects and jurisdictional REDD+ programmes have been a particular focus of this research in recent years (see a selection of relevant publications at the end of the submission).

1 Allow me to repeat my consternation expressed in my November 2018 submission to the previous version of the Tropical Forest Standard. The updated 30 July 2019 version of the Tropical Forest Standard appears to continue to confuse the basic economic concepts of 'uncertainty' and 'risk'. As mentioned in my November 2018 submission, the impermanence of carbon storage in forests is not a "risk" but an "uncertainty" issue. This is highly relevant in assessing the harm that offset trading schemes which equate fossil and forest carbon might cause to efforts to avert climate chaos. It is disappointing to observe that this fundamental issue remains unaddressed in the most recent version of the Tropical Forest Standard.

The Board has clarified that endorsement of the Tropical Forest Standard by the California Air Resources Board would not *"result in any linkage with any jurisdiction, nor would it allow any tropical forest offsets into the California Cap-and-Trade Program"*. However, the purpose of the Tropical Forest Standard is *"to establish robust criteria against which to assess jurisdictions seeking to link their sector-based crediting programs that reduce emissions from tropical deforestation with an emissions trading system (ETS), such as California's Cap-and-Trade Program."* As a standard which confuses the issues of 'uncertainty' and 'risk' cannot be considered to provide "robust" criteria, I will summarize the difference between "risk" and "uncertainty" in the following paragraphs. The following paragraph is verbatim from my November 2018 submission; the issues raised have not been addressed in the updated 30 July 2019 version of the Tropical Forest Standard.

The economist Frank H. Knight established the economic definition of the terms in his 1921 landmark book, *Risk, Uncertainty, and Profit*. He explains that *risk* establishes a *measurable probability* of future events while *uncertainty* is *not measurable, and cannot be quantified*.

Uncertainty occurs when circumstances cannot be analysed either on *a priori* grounds - because they are too irregular - or through empirical observation - because they are too unique, for example. In other words, in uncertainty, the outcome of any future event is completely unknown, and it cannot be measured or guessed. **The future of carbon storage in tropical forests over the coming 100 years – the minimum time of storage guarantee required by California's Cap-and-Trade Regulation – must be considered a circumstance that meets the definition of uncertainty, not risk:** It is neither measurable nor quantifiable on *a priori* grounds or through empirical observation, and it cannot be guessed. As a consequence, a circumstance of uncertainty must not be deemed to be resolved through insurance or buffer pool arrangements.

Yet, that is precisely what the updated 30 July 2019 version of the Tropical Forest Standard continues to propose. The updated 30 July 2019 version of the Tropical Forest Standard seems to suggest that a proposed minimum 10 percent "buffer pool" will guard against what is falsely identified as permanence "risk", but what in reality is the uncertainty of permanence that is inherent in any (tropical) forest carbon storage. Buffer pools and insurance are instruments designed to address "risk", not "uncertainty".

This uncertainty of carbon storage in (tropical) forests ought to rule out (tropical) forest carbon projects from inclusion in any *offset scheme* that requires assurance that emission reductions are "permanent". By proposing an instrument designed to address "risk" when the issue at hand is one of "uncertainty", the updated 30 July 2019 version of the Tropical Forest Standard does still not provide credible assurance that storage of the carbon sold as offset credit can be considered a "permanent" reduction. The experience I cite in my November 2018 submission of a REDD+ project in Cambodia which the California Air Resources Board's 2015 White Paper on International Sector-based Offsets cites as a positive example for addressing the uncertainty in permanence of carbon storage in forests in under the chapter 'Ensuring "Permanent" Emission Reductions from a Jurisdictional REDD Program' continues to be a striking example for why buffer pools are inadequate to address the impermanence of carbon storage in forests over the time scales relevant to averting climate chaos.

How can a standard which demonstrably confuses the concepts of 'uncertainty' and 'risk' be considered to provide "robust criteria"¹ for assessment whether alleged emission reductions from reducing deforestation represent real, additional, *permanent, quantifiable, verifiable*, and enforceable reductions? Ignoring that attempting to offset interference of fossil carbon, once released, with the Earth's climate system requires carbon storage over timescales that cannot be guaranteed with carbon storage in forests risks endorsing a Tropical Forest Standard which may undermine rather than aid action to avert climate chaos. For this reason alone, the California Air Resources Board must not endorse the updated Tropical Forest Standard.

2 In addition to constituting an inadequate approach to the challenge of 'uncertainty', the size of the 'buffer pool' (10 percent) appears extremely low, considering that uncertainty margins of data sets and forest carbon storage calculations are routinely 30 percent and

¹ 1.1 (a). "The purpose of the California Tropical Forest Standard is to establish robust criteria against which to assess jurisdictions seeking to link their sector-based crediting programs that reduce emissions from tropical deforestation with an emissions trading system (ETS), such as California's Cap-and-Trade Program."

(much) higher. A 10 percent buffer pool requirement will in many cases lead to a buffer pool containing buffer credits that are merely the result of calculation and measurement uncertainties rather than actual emission reductions or avoided emissions. A case in point is the jurisdictional REDD+ Programme in Ecuador which recently applied for 'results-based' payments under a Green Climate Fund programme on REDD+. ² The application revealed "an aggregate uncertainty estimate of 39.9%" for the deforestation rates and hence, crediting results period 2009 – 2014. The uncertainty of the estimated area deforested over the period relevant for the calculation of the 'results-based' REDD+ payments alone amounted to 39.6 percent. Such ranges are the norm rather than the exception, and might even represent the lower end of uncertainty ranges related to forest reference levels and the underlying data sets used to establish these reference levels.

3 Chapter 4, Reference Level, remains unclear on at least one crucial aspect: The formulation used in the Standard ("*To ensure integrity in reducing emissions, the reference level must be based on historical data rather than projections of future deforestation rates*" (emphasis added)) suggests that the standard is applicable primarily in countries with high deforestation rates in the (recent) past.

The standard also states that "*The reference level must be developed consistent with IPCC methodologies*". These methodologies include the possibility for countries with low historical deforestation rates and high forest cover to increase their reference level above that calculated on the basis of historical deforestation rates, by applying a 'development factor'.

The Tropical Forest Standard does not clarify whether it also accepts such an inflation of a reference level derived from historical deforestation rates or whether the basis for calculation of the reference level is solely the historical deforestation data over a consecutive 10 year period for the jurisdiction in question.

4 It remains unclear what responsibility the California Air Resources Board would assume if it were to endorse the Tropical Forest Standard: Would it as the entity that developed and endorsed the Standard be responsible to monitor that the Standard is used as intended by the California Air Resources Board? What mandate or mechanisms for monitoring the use of the Standard does the California Air Resources Board have or intend to put in place? What measures would be taken if other governments or actors used the California Tropical Forest Standard in a way that jeopardized the credibility or reputation of the California Air Resources Board? Will others wanting to use the Standard have to apply for accreditation to do so? Entities releasing or endorsing standards such as the Tropical Forest Standard assume a responsibility over the use of their standard and usually detail the governance structure that will apply to use and implementation of the standard. Such information does not appear to be available in relation to the California Tropical Forest Standard and it remains unclear who would assume responsibility for monitoring the use of the standard by other governments or actors.

5 Finally, I would like to reiterate that the updated Tropical Forest Standard continues to be based on the untenable assumption that the climate impacts of fossil carbon and forest carbon are commensurate. They are not, as has been pointed out to the California Air Resources Board in earlier submissions on the topic of forest carbon offsets (Lohmann 2015:

² FP110. Ecuador REDD-plus RBP for results period 2014. <https://www.greenclimate.fund/projects/fp110>

124-1
51, McAfee 2015:47, Furtado 2015:14, to name just a few). Yet, nowhere do the updated 30 July 2019 version of the Tropical Forest Standard or the Draft Environmental Analysis presented alongside the November 2018 version of the Standard even acknowledge this crucial difference of the climate impact of forest and fossil carbon. Because the climate impact of fossil and forest carbon are not equivalent, no standard based on the false assumption that they are, can be considered to provide "*robust criteria against which to assess jurisdictions seeking to link their sector-based crediting programs that reduce emissions from tropical deforestation with an emissions trading system (ETS), such as California's Cap-and-Trade Program*" – let alone meet the general requirements set out in California's Cap-and-Trade Regulation, sections 95991-95994.

Not least because of the reasons stated above, I strongly urge the California Air Resources Board to not endorse the updated 30 July 2019 version of the Tropical Forest Standard, and reject any attempts to accept REDD+ credits into California's carbon trading system.

Jutta E. Kill
Biologist
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juttakill@gmx.net

Selection of publications relevant to this submission:

J. Kill & L. Schalatek (2019): Green Climate Fund and REDD+: Funding the Paradigm Shift or Another Lost Decade for Forests and the Climate? <https://us.boell.org/2019/03/21/green-climate-fund-and-redd-funding-paradigm-shift-or-another-lost-decade-forests-and>

J. Kill (2018): REDD Early Movers. Ergebnisbasierte Zahlungen ohne klimarelevante Ergebnisse? A critical assessment of the REDD Early Movers jurisdictional programme funded by the German development bank KfW in the Brazilian state of Acre.
<https://www.rosalux.de/publikation/id/38711/redd-early-movers/>

J. Kill (2018): Envira REDD+ project in Acre, Brazil: Gold certificate from carbon certifiers for empty promises. <https://wrm.org.uy/articles-from-the-wrm-bulletin/section1/envira-redd-project-in-acre-brazil-gold-certificate-from-carbon-certifiers-for-empty-promises/>

S. Counsell and J. Kill (2017): Public comment Mai Ndombe REDD+ project verification to the CCB standard. 07 September 2017.
<https://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/28497>

J. Kill (2016): The Kasigau Corridor REDD+ Project in Kenya: A crash dive for Althelia Climate Fund. Report published by Re:Common & Counter Balance. http://www.counter-balance.org/wp-content/uploads/2017/02/The-Kasigau-Corridor-REDD_Kenya.pdf

Jutta Kill (2015): Economic Valuation and Payment for Environmental Services: Recognizing Nature's Value or Pricing Nature's Destruction?
<https://www.boell.de/en/2015/11/06/economic-valuation-and-payment-environmental-services>

World Rainforest Movement (2014): REDD: A Collection of Conflicts, Contradictions and Lies. <http://wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies/>



132

August 29, 2019

Via electronic portal at <https://www.arb.ca.gov/lispub/comm/bclist.php>

Mary Nichols, Chair
California Air Resources Board
1001 I St, Sacramento, CA 95814

Re: The California Tropical Forest Standard

Dear Chair Nichols and members of the California Air Resources Board:

Please accept these comments on behalf of the Center for Biological Diversity regarding the California Tropical Forest Standard ("TFS") and accompanying Environmental Analysis ("EA"). The Center for Biological Diversity is a non-profit organization with more than 1.6 million members and online activists, including over 150,000 members and supporters in California.

Given the shortcomings of the TFS, and the failure of the EA to acknowledge that the TFS could have substantial negative impacts, we must respectfully urge the Board to reject endorsement of the proposed Tropical Forest Standard and to focus instead on developing policies that address the drivers of tropical deforestation.

We appreciate the attention that the California Air Resources Board ("ARB") has given to the serious problem of tropical deforestation and we strongly agree that this is an urgent issue. Halting and reversing tropical deforestation is critical to preserving tropical ecosystems, as critical components of the world's weather systems, and as substantial carbon stores, as well as for the people and amazing wildlife that live there. However, we have serious concerns with the proposed TFS as a method for addressing deforestation and securing climate benefits.

In addition to the problems outlined below, the updated TFS does not address the concerns and objections from environmental justice and indigenous rights groups; runs contrary to the explicit recommendations of ARB's Environmental Justice Advisory Committee which has explicitly urged the state not to pursue international forest offsets; and fails to respond to the concerns raised by the coalition of environmental justice organizations, indigenous rights groups, and other leaders who have objected to ARB's development of an international forest offsets program (comments submitted on May 13, 2016).

We have no objections to the specific amendments in the updated TFS. These amendments all appear to be positive. However, these changes do not respond to our primary concerns regarding the TFS. Those issues were described in our comments submitted to the previous proposal (letter dated October 29, 2018), which are submitted here again as an attachment to this letter. In particular, the amendments do not address the following issues:

132-1

1. Under the TFS one way to address the risk of leakage is for the partner state to identify those commodities that are driving deforestation locally and to increase the production of those same commodities in non-forest areas. However, neither the TFS nor the EA acknowledges the potential that intensification of agricultural and other activities outside of the forest could result in substantial land use changes and significant negative impacts for the environment, society, and economy. In addition, the TFS fails to account for greenhouse gas emissions associated with intensified activities outside the forest, or to ensure that the resulting greenhouse gas increases are deducted from the carbon offset credits.

2. Because the TFS takes a purely jurisdictional approach to leakage, it focuses primarily on the economic drivers of deforestation within the partner state, and contains no mechanism to control for leakage outside the jurisdiction or account for that leakage when it occurs. Should the TFS result in the leakage of deforesting operations across the state lines into an adjacent state (potentially within the same forest) there is no provision to identify that such leakage is occurring, nor is there any mechanism to account for the carbon impacts of that leakage. Regional monitoring of deforesting activities, in the context of the markets for deforestation-linked commodities, is critical to determining the full ecological and climate impacts of TFS projects.

3. The TFS does not provide monitoring adequate to identify negative impacts should they occur as a result of the TFS within the partner state or in neighboring states. In their June 17, 2019, letter to ARB, Assemblymembers Garcia, Bloom, Kalra, and Reyes indicated that their support for ARB moving to endorse the TFS was explicitly tied to an assumption of "vigorous and proactive monitoring." The legislators recognized the "uncertainty on whether the TFS will be successful in protecting forests and the people who inhabit them" and stated that "[ARB] must consider its endorsement in tandem with its ability to commit to such monitoring work moving forward." A monitoring program is particularly important given that California has no authority in international jurisdictions, and ARB has no expertise in international rural development projects, a key component of the TFS. However, the proposed TFS does not include such a monitoring plan.

132-2

4. Neither the TFS nor the EA addresses the risk that endorsing the TFS—and the subsequent development of the offset market—could have negative impacts in jurisdictions where landowners and governments move to secure control of forest lands in the anticipation of developing forest carbon projects for the TFS. It may be that such actions would ultimately disqualify those jurisdictions from participating in the TFS but, in the absence of an international program to monitor and address such actions, substantial and irreversible damage could be done to local and indigenous communities.

5. Given the potential for negative impacts within and beyond the TFS jurisdictions, the TFS must contain a mechanism for halting and rescinding the offset program that adoption of the TFS is intended to induce, and should identify specific criteria for taking such action. Otherwise, California would have no way of curtailing ongoing damage if their adoption of the TFS results in unexpected or outsized negative impacts.

Given the shortcomings of the TFS, and the failure of the EA to acknowledge that the TFS could

have substantial negative impacts, the Center for Biological Diversity respectfully urges the Board to reject endorsement of the proposed Tropical Forest Standard.

We urge ARB to focus instead on developing policies that address the drivers of tropical deforestation, commodities such as crude oil, palm oil, beef and timber from the Amazon. California is by far the largest importer, refiner, and consumer of Amazon crude in the United States, and California processes half of all crude exports from the Amazon basin. Holding California importers accountable for the full climate impacts of that crude (not to mention the ecological impacts) is one way to decrease the profitability of deforestation activities. Also, as the fifth largest economy in the world, California has an ability to influence the market for deforestation-linked commodities like palm oil, both through the purchasing power of the state government and by holding individual consumer products accountable for their supply chains.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in cursive script that reads "Brian Nowicki".

Brian Nowicki
Center for Biological Diversity
(916) 201-6938
bnowicki@biologicaldiversity.org



Submitted via online portal at:

https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=tfs2018&comm_period=N

October 29, 2018

Jason Gray
Cap-and-Trade Program, Branch Chief
California Air Resources Board
Sacramento, CA

Re: 2018 Proposed Tropical Forest Carbon Standard

Dear Mr. Gray:

The Center for Biological Diversity (“Center”), Friends of the Earth (“FOE”), and Indigenous Environmental Network (“IEN”) respectfully submit the following comments on the Draft Tropical Forest Standard (“TFS”) and accompanying Draft Environmental Analysis (“Draft EA”).

The Center is a non-profit organization with more than one million members and online activists, including over 150,000 members and supporters in California. The Center’s mission is to ensure the preservation, protection and restoration of biodiversity, native species, ecosystems, public lands and waters, and public health. In furtherance of these goals, the Center’s Climate Law Institute seeks to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and human health and welfare. Specific objectives include securing protections for species threatened by global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues.

Friends of the Earth-United States (FOE) is a non-profit advocacy organization with offices in Washington D.C., Berkeley, California, and Raleigh-Durham, North Carolina, with more than one-and-a-half million members and online activists, and over 100,000 supporters in California. Friends of the Earth has been active in environmental advocacy in California for decades; notable efforts have included successful public campaigns to remove nuclear power from the state’s energy portfolio; advocacy to reduce the climate footprint of school lunch programs; and advocacy against offshore oil extraction and the expansion of the state’s oil refineries. In 2018 we successfully worked with the California Public Employees’ Retirement

System to revise the agency's Sustainability and Governance Principles to recognize deforestation, biodiversity loss, land rights risks, and Indigenous Peoples' rights to Free, Prior and Informed Consent as significant issues for investment management, in an effort to reduce California's role in driving deforestation and ecosystem degradation both within and beyond our state's borders. As a member of Friends of the Earth International, a federation of environmental organizations in 74 countries, FOE-US has an extensive history working across borders and jurisdictions; our approach is deeply informed by our close partnerships with member groups in tropical forest countries.

Indigenous Environmental Network (IEN) is an alliance of Indigenous Peoples whose Shared **Mission** is to **Protect the Sacredness of Earth Mother** from contamination & exploitation by Respecting and Adhering to **Indigenous Knowledge** and **Natural Law**.

The Center, FOE, and IEN request that CARB *reject* the TFS. We agree with the California Air Resources Board ("CARB") that tropical deforestation is a serious problem. Halting and reversing tropical deforestation is critical to preserving tropical ecosystems, as critical components of the world's weather systems, and as substantial carbon stores, as well as for the people and amazing wildlife that live there. Also, California, as the world's fifth largest economy and with our own state's history of deforestation, development, and greenhouse gas emissions, is responsible for a substantial portion of current and historic climate pollution and ecological degradation.

It is troubling, however, that CARB is continuing to push an international forest offsets program, which ignores the well-documented concerns and objections from environmental justice and indigenous rights groups, and the extensive evidence on harms in the peer-reviewed academic literature. CARB's Environmental Justice Advisory Committee (EJAC) has explicitly and repeatedly urged the state not to pursue or include REDD offsets in California's cap-and-trade program.¹ A coalition of 21 environmental justice organizations, indigenous rights groups, and other leaders has objected to an international forest offsets program in comments submitted on May 13, 2016. Moreover, California does not have the same expertise as the UN for effective implementation of rural development projects, and it is troubling that CARB assumes that it can perform better with a challenging international development dynamic than the UN.

In addition and in particular, CARB should reject the TFS for the reasons explained below. These include, but are not limited to:

- Tropical forest offsetting would exacerbate the dislocation of co-benefits from California, and would exacerbate environmental burdens, particularly in disadvantaged communities. It could harm California communities by allowing polluters in California to produce more greenhouse gas ("GHG")—and co-pollutants—by purportedly offsetting their GHG emissions elsewhere.

¹ California Air Resources Board Environmental Justice Advisory Committee. "Comments on the Proposed AB 32 Scoping Plan." April 11, 2014; California Air Resources Board – 2017 Scoping Plan, Appendix A, AB 32 Environmental Justice Advisory Committee (EJAC) Recommendations, November 2017 ("Do not pursue or include reducing emissions from deforestation and forest degradation (REDD) international offsets in the Scoping Plan.").

- Tropical forest offsetting does not work to decrease GHG emissions or prevent tropical deforestation. Such programs fail to ensure additionality, are vulnerable to leakage, and threaten forest ecosystems by failing to address the drivers of deforestation.² They further pose serious threats to indigenous rights. The TFS does not provide enforceable measures to prevent these harms, especially as CARB sees it being adopted by other jurisdictions, many of which either may not have high environmental standards or strong enforcement mechanisms.
- Tropical forest offsetting detracts from the necessary work of preventing emissions from their largest source: extraction and burning of fossil fuels.

Specifically with regard to the last point, we are perplexed that California continues to allow extraction and refining of dirty fossil fuels within its jurisdiction—especially in and near communities of color—while it spends its time tweaking a program that is inefficient at best, and destructive at worst, and which exacerbates harms to California communities.

A recent 2018 report from the Intergovernmental Panel on Climate Change (IPCC) highlights the necessity of limiting warming to 1.5°C, rather than the Paris Agreement's 2°C, to avoid catastrophic impacts to people and life on Earth.³ According to the IPCC's analysis, the damages that would occur at 2°C warming compared with 1.5°C include more deadly heatwaves, drought and flooding; 10 centimeters of additional sea level rise within this century, exposing 10 million more people to flooding; a greater risk of triggering the collapse of the Greenland and Antarctic ice sheets with resulting multi-meter sea level rise; dramatically increased species extinction risk, including a doubling of the number of vertebrate and plant species losing more than half their range, and the virtual elimination of coral reefs; 1.5 to 2.5 million more square kilometers of thawing permafrost area with the associated release of methane, a potent greenhouse gas; a tenfold increase in the probability of ice-free Arctic summers; a higher risk of heat-related and ozone-related deaths and the increased spread of mosquito-borne diseases such as malaria and dengue fever; reduced yields and lower nutritional value of staple crops like corn, rice, and wheat; a doubling of the number of people exposed to climate-change induced increases in water stress; and up to several hundred million more people exposed to climate-related risks and susceptible to poverty by 2050.⁴ In order to avoid these catastrophic consequences, the 2018 IPCC report provided a carbon budget for a 66 percent probability of limiting warming to 1.5°C, estimated at 420 GtCO₂ and 570 GtCO₂ depending on the temperature dataset used, from January 2018 onwards.⁵ At the current emissions rate, this carbon budget would be expended in just 10 to

² As Dr. Barbara Haya of the Berkeley Energy & Climate Institute has explained in a previous rulemaking, there are many factors that affect deforestation rates, many of which are beyond the scope of an international forest offsets program, such as soy and beef moratoriums, changes in global commodity prices, and jurisdictional policy regardless of an offsetting program. Barbara Haya, Research Fellow, Berkeley Energy & Climate Institute, University of California, Berkeley. Comments on California's proposed REDD program and linkage with Acre, Brazil, submitted June 4, 2016, at 4. Available at <https://www.arb.ca.gov/lists/com-attach/34-sectorbased4-ws-UDgGYVwkWGoLUgBj.pdf>. (Hereinafter, "Haya, June 4, 2016.")

³ IPCC [Intergovernmental Panel on Climate Change], Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (October 6, 2018), available at <http://www.ipcc.ch/report/sr15/>.

⁴ *Id.* at Summary for Policymakers.

⁵ IPCC [Intergovernmental Panel on Climate Change], Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission

14 years, underscoring the urgent need for immediate, transformative global action for a just transition from fossil fuel use to clean energy.⁶ Simply put, CARB should be focusing on immediate, comprehensive measures that will end fossil fuel extraction and combustion *in California*, which is critical for staying below 1.5°C of warming and avoiding the worst damages from climate change.

Moreover, CARB should reject the TFS because it is not supported by an adequate or informative environmental analysis. The Draft Environmental Analysis (“EA” or “Draft EA”) should be prepared to inform CARB’s decision-making on this matter, regardless of whether CARB believes it was “required” by this project. Once CARB endorses this standard, it foresees it being used for airline offsetting, by emissions trading programs in other jurisdictions, and/or by linking to California’s cap-and-trade program; however, the Draft EA either barely touches on these contingencies or ignores them completely. Even if a public process must occur before these future events, a) there is no guarantee all of them will include their own environmental analyses, and b) CARB should not move forward with endorsing a standard without a comprehensive understanding of its potential impacts. Indeed, it is clear that CARB is unsure of what type of “rulemaking” it is currently undertaking, including whether it even merits an EA, which means this process and the TFS’ implications and impacts are even more confusing and concerning to the public.

Thus, for the reasons set forth herein, CARB should reject the TFS, and focus its time and effort on immediate, proven, and comprehensive measures and programs that will end fossil fuel emissions and keep global warming under 1.5°C.

I. The TFS Should be Rejected Because It Fails to Meet Many of Its Primary Objectives.

a. The Project Fails to Fulfill its Objective to Incentivize Reductions of GHG Emissions from Tropical Deforestation.

The Draft EA states that a primary objective of the TFS is to incentivize reductions of GHG emissions from tropical deforestation.⁷ However, the goal of protecting tropical forests is fundamentally different from the primary goal of a carbon offset market, which is to reduce the cost to industrial polluters for complying with the requirements of California’s greenhouse gas pollution laws. Importantly, research shows that market-based international forest offset trading programs have not proven to be an effective way to reduce GHG emissions from deforestation, and the TFS does not overcome these short-comings.

Evidence from existing REDD programs indicates that they are not effective in reducing deforestation. A 2017 meta-analysis of deforestation rates that analyzed 23 subnational REDD+ initiatives in Brazil, Peru, Cameroon, Tanzania, Indonesia and Vietnam concluded that REDD programs were not effective in reducing deforestation: “we find overall minimal impact of

pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (October 6, 2018), <http://www.ipcc.ch/report/sr15/>.

⁶ *Id.*

⁷ Draft EA at 10.

REDD+ in reducing deforestation on the ground thus far.”⁸ Similarly, an analysis of REDD+ programs in Indonesia found only “mixed” results for carbon sequestration.⁹

A key reason that offset programs such as REDD are not effective is because they fail to address the main drivers of deforestation, such as large-scale commercial agriculture, cattle ranching, timber harvesting, and conflicts over land and resources.¹⁰ As summarized by ethnographic research by Milne et al. (2018), “many REDD+ schemes appear to have fueled social conflict while having limited success in addressing the drivers of forest loss and degradation,” finding that “REDD+ in the course of implementation maps onto local power structures and political economies, rendering it blunt as tool for change.”¹¹

b. The Project Fails to Fulfill its Objective to “Establish Robust Criteria for Emissions Trading Systems to Assess, and Potentially Include, Jurisdiction-Scale Programs that Reduce GHG Emissions from Tropical Deforestation.”

As detailed below, the TFS fails to fulfil its objective to “establish robust criteria” for “emissions trading systems to assess, and potentially include, jurisdiction-scale programs that reduce GHG emissions from tropical deforestation.”¹² The TFS criteria will not prevent leakage or ensure additionality and permanence.

i. The International Forest Offsets Program Proposed by the TFS is Highly Vulnerable to Leakage, Particularly Interstate Leakage Within the Same Country and International Leakage to Other Tropical Forest Regions.

The International Forest Offsets program proposed by the TFS is vulnerable to leakage of forest-destroying activities both within and beyond partner jurisdictions. Leakage – which refers to the increase of deforestation activities outside the partner jurisdiction in response to reductions within the partner jurisdiction, including both activity shifting leakage and market shifting leakage – is very difficult to monitor and mitigate. The Draft EA acknowledges that leakage could result in the TFS failing to “lead to real reductions or sequestration from the perspective of the atmosphere.”¹³ However, the TFS’s requirements are inadequate to monitor or prevent leakage, particularly interstate leakage within the same country and international leakage to other tropical forest regions.

The TFS’s mechanisms for detecting, managing and mitigating leakage are vague, and include a single requirement that is focused within partner jurisdiction boundaries: “a demonstration that drivers, agents, and causes of deforestation are directly addressed by the

⁸ Bos, A.B. et al., Comparing methods for assessing the effectiveness of subnational REDD+ initiatives, 12 Environmental Research Letters 074007 (2017).

⁹ Enrici, A.M. & K. Hubacek, Challenges for REDD+ in Indonesia: a case study of three project sites, 23 Ecology and Society 7 (2018).

¹⁰ Osborne, T. et al., Indigenous Peoples and REDD+: A Critical Perspective, Indigenous People’s Bicultural Climate Change Assessment Initiative, November 2014.

¹¹ Milne, S. et al., Learning from ‘Actually Existing’ REDD+: A Synthesis of Ethnographic Findings, Conservation and Society (2018).

¹² Draft EA at 10.

¹³ Draft EA at 11.

program *within the implementing jurisdiction's geographic boundaries*,” with two suggested options for fulfilling this requirement: demonstrating (1) business-as-usual or accelerated production of crops and livestock (two of the commodities that can drive deforestation) within the partner jurisdiction, or (2) no increase in production of extractive industry within the partner jurisdiction, accompanied by lower deforestation and forest degradation rates.¹⁴

However, simply showing business-as-usual or increased production of crops and livestock within a partner jurisdiction (or alternately no increase in extractive industry production within a partner jurisdiction) does not prove that leakage is not occurring beyond that jurisdiction. The displacement of forest-destroying activities from inside to outside implementing jurisdictions could still be occurring, where “farmers, ranchers, agribusinesses, developers or logging companies that face restrictions on access to forest land through a REDD+ program in one state tend to seek land in neighboring states, or elsewhere in the nation where the REDD+ program is operating, because of their familiarity with the laws, institutions, and culture of that nation.”¹⁵

Furthermore, encouraging the intensification (i.e., “accelerated” rate of production) of agriculture and livestock on cleared lands could have substantial negative social and environmental implications for local communities and the surrounding forest. In the Brazilian Amazon and elsewhere, the intensification of agricultural land use due to tightened regulation of deforestation and agronomic practices had led the expansion of land areas being cleared for crops and livestock, including forest clearing in neighboring jurisdictions: “Common to all analyses is the evidence that intensification of profitable land uses tends to enhance its spread rather than to confine it spatially, regardless of the mix of drivers (Hecht 2005; Morton et al. 2008; Rudel et al. 2009; DeFries, Rudel, and Hansen 2010).”¹⁶

To prevent this, it would surely not be sufficient in many jurisdictions to simply require that local environmental laws not be violated, as states where substantial deforestation is occurring generally do not have either high environmental standards or strong enforcement mechanisms.¹⁷ In addition, it would be extremely difficult to monitor such non-forest activities outside of forest project boundaries, across the partner state’s economy.

ii. The International Forest Offsets Program Proposed by the TFS Carries a High Risk of Crediting Non-Additional Activities.

The baseline level of deforestation, or “reference level,” must guarantee that credits generated by reducing deforestation and degradation relative to that baseline are additional to what would have occurred in the absence of an offsets program. However, setting baseline “reference levels” for crediting is problematic because there are many factors that affect deforestation rates. Evidence indicates that past deforestation rates do not accurately indicate

¹⁴ TFS at 15-16.

¹⁵ ROW at 34.

¹⁶ Oliveira, G. & S. Hecht, Sacred groves, sacrifice zones and soy production: globalization, intensification and neo-nature in South America, 43 Journal of Peasant Studies 251 (2016).

¹⁷ Milne, S. et al., Learning from ‘Actually Existing’ REDD+: A Synthesis of Ethnographic Findings, Conservation and Society (2018).

current and future deforestation rates, which are influenced by many different social and economic factors within the jurisdiction, by the larger market for goods driving deforestation, and by national and state-level policies and efforts. Moreover, a recent single year with an exceptionally high rate of deforestation could dramatically lower the baseline, allowing partner jurisdictions to produce forest offsets of no real carbon benefit.

In comments submitted to ARB in June 2016 on the proposed REDD program and linkage with Acre, Dr. Barbara Haya of the Berkeley Energy & Climate Institute presented the results of an analysis of ARB's proposal to set the crediting baseline at 10% below the average rate of deforestation within a state during the previous ten years¹⁸—the approach that has been adopted by the TFS.¹⁹ Haya compared the ten-year average deforestation rate (2001-2010) to the period from 2011-2015. Of the 102 jurisdictions that Haya assessed, thirteen showed a drop in deforestation rates by greater than 10%, meaning that an international forest offsets program hypothetically initiated in 2011 with a crediting baseline equal to 10% below the average rates during the previous 10 years would have generated credits without any further action, resulting in non-additional crediting. In Acre, average deforestation rates during the 2011-2015 period were 15% lower than the 2001-2010 average, meaning, again, that linkage with Acre over this period would have generated offsets that had no real carbon benefit. To reiterate this point, a ten-year historical average does not represent current trends under recently implemented deforestation programs within the Brazilian state of Acre, which is being considered for linking in CA-REDD. As Haya describes in her comments:

For example, in Brazil, reductions have been affected by the soy and beef moratoriums catalyzed by international NGOs, national Brazil policy, state-level policy and programs, and changes in global commodity prices... It is difficult to assess the extent to which deforestation rates were affected by any one of these factors. Second, the Brazilian government and Acre have decided to make forest protection a priority for a range of reasons, not just for the global climate benefits. Brazil has also committed to reducing its deforestation rate as a part of its commitments under the UN Paris climate accords (in their INDC). They are also receiving funds from governments internationally to help pay for these efforts, including from Norway as mentioned above. An effective REDD program is hard to carry out and requires substantial political will to be successful. The sale of REDD credits can help pay for, and provide legitimacy for, a government to carry out a program they wish to carry out. But if those payments are the main motivation for a REDD program, that REDD program is bound to fail; the political will would not likely be sufficient for an effective REDD program that preserves forests for the long run rather than just lowering emissions for a short period of time. For all of these reasons, *REDD credits would not be considered additional as offset credits.*"

Other analyses have similarly shown that the baseline "reference level" varies significantly depending on the reference time period that is chosen, and can lead to non-additionality. For example, Mertz et al. (2018) found that forest reference levels are highly

¹⁸ Haya, June 4, 2016.

¹⁹ TFS at 12-14.

sensitive to the reference period chosen, and therefore “demonstrating additionality of REDD+ in fast developing areas is difficult.”²⁰ Another study found that “depending upon the baseline approach used, the total credited emissions avoided ranged over two orders of magnitude for the same quantity of actual emissions reductions.”²¹ These studies show that the reference levels proposed by the TFS do not provide sufficient certainty to deliver robust and additional carbon credits for compliance purposes.

iii. The International Forest Offsets Program Proposed by the TFS Does Not Guarantee Permanence In Carbon Emissions Reductions.

In the TFS, “permanence” means that emissions reductions from “efforts to reduce tropical deforestation and/or degradation must not be reversed and must endure for at least 100 years.”²² This is problematic in several regards. First, to stay within the carbon budget for avoiding the worst damages from climate change, projects with truly permanent carbon emissions reductions should be prioritized. Instead, tropical forest offset programs exchange *certain, permanent* carbon benefits that would be achieved by avoided fossil fuel emissions for hoped-for uncertain, temporary carbon sequestration in speculative international forest projects.²³

Second, there is nothing to demonstrate that CARB or partner jurisdictions have the capacity to monitor and manage an array of international forest offset projects over the course of an entire century, particularly given the extreme social, political and environmental disruption that is projected under even best-case global warming scenarios.

Third, it is unlikely that revenues from California offset credit sales can compete over time with the opportunity values of many non-forest land uses. Rising agricultural land values and commodity prices – a plausible result of growing global land and food scarcity – could easily swamp regulatory efforts, such as the TFS, that depend on markets in greenhouse-gas offsets.

Finally, the TFS’s proposed response to the permanence problem is inadequate. A buffer pool of credits would reduce total revenues from credit sales and could quickly become insufficient under many scenarios, such as an increase in commodity prices from competing land uses (for crops, livestock, timber, etc), economic changes, and political changes and upheaval.

c. The TFS Fails to “Ensure Rigorous Social and Environmental Safeguards.”

The Draft EA states that the TFS will “ensure rigorous social and environmental safeguards” through its “minimum social and environmental safeguards requirements.”²⁴ However, as detailed below, there is extensive evidence that, in practice, tropical forest offset programs, like that proposed by the TFS, repeatedly fail to safeguard Indigenous Peoples and

²⁰ Mertz, O. et al., Uncertainty in establishing forest reference levels and predicting future forest-based carbon stocks for REDD+, 13 Journal of Land Use Science 1 (2018).

²¹ Griscom B, et al., Sensitivity of amount and distribution of tropical forest carbon credits depending on baseline rules, 12 Environ Sci Policy 897 (2009).

²² TFS at 7.

²³ Mackey, B. et al., Untangling the confusion around land carbon science and climate change mitigation policy, 3 Nature Climate Change 552 (2013).

²⁴ Draft EA at 12.

have resulted in a disturbing history of human rights violations, even when social safeguards are reportedly in place. Furthermore, the TFS's requirements do nothing to protect California communities, particularly low-income communities and communities of color, who will be harmed by the implementation of an international offset program that allows California's big polluters to release more air pollution into their communities. The TFS also provides no real protections for forest biodiversity.

i. Harms to Indigenous Communities: Threats of Human Rights Violations Against Indigenous Peoples from the Proposed International Forest Offset Programs.

CARB asserts that the TFS will "ensure rigorous social and environmental safeguards" for indigenous peoples through the minimum requirements outlined in Chapter 10.²⁵ While these requirements may sound good on paper, CARB has ignores the extensive evidence that REDD programs do not safeguard Indigenous Peoples in practice and have led to human rights violations, even when social safeguards are reportedly in place.

CARB must confront the vast body of evidence showing that REDD programs have an extensively documented history of human rights violations of Indigenous and forest-dependent communities, including land grabs; exclusion from forests and restrictions on resource access; coercion; institutional violence; lack of meaningful participation including failure to obtain Free, Prior, Informed Consent; forced decision-making; lack of equitable benefit-sharing; and imprisonment for continuing cultural practices on the land. Indigenous Peoples are put at risk of displacement and loss of control of their forests, their way of life, cultures, food security, and sovereignty. This is not surprisingly given that the market linkages proposed by CARB subject Indigenous Peoples to inequitable power structures.

These widespread human rights violations clearly show that there are inherent inadequacies in the social safeguards of REDD+SES and that the social safeguard framework of the TFS is insufficient. The remote location of many potential projects makes verification, monitoring and enforcement of the projects extremely difficult and unlikely to succeed. This means even if a project claims to meet all of CARB's social safeguards, there is no way to ensure human rights violations are not happening on the ground. In short, no amount of fine-tuning by CARB staff will arrive at a version that will provide assurances that the TFS will be immune to human rights violations.

CARB must not approve the TFS without confronting the evidence from numerous reports and studies documenting harms to indigenous communities from market-based REDD-type forest offsets programs, including but not limited to:

- A World Rainforest Movement report examining 14 REDD and PES projects around the world which documented extensive human rights abuses to forest-dwelling peoples: "In many cases communities were never asked whether they consented to the forest carbon project...Where REDD project plans were presented to communities...what the villagers

²⁵ TFS at 18-19.

got in return was mainly harassment, restrictions on land use, and blame for deforestation and climate change.”²⁶

- A comprehensive report from the Indigenous People’s Biocultural Climate Change Assessment Initiative (IPCCA), with case studies in seven countries, showing that market-based approaches can neither fully respect and protect human rights nor conserve forests over the long term.²⁷
- A report from the Brazilian Platform for Human, Economic, Social, Cultural and Environmental Rights describing Acre as a state suffering extreme inequality, deepened by a lack of information about green economy projects, which results in communities being coerced to accept “top-down” proposals as substitutes for a lack of public policies to address basic needs.²⁸
- A 2016 study from Madagascar showing that existing social safeguards are not being fulfilled: “This research shows that existing safeguard commitments are not always being fulfilled and those implementing social safeguards in REDD+ should not continue with business as usual.”²⁹
- Recent research showing that REDD programs do not increase the well-being or income sufficiency of indigenous groups:
 - A comprehensive review by Sunderlin et al. (2017) on the degree of success in meeting well-being and income goals examined in six countries (Brazil, Peru, Cameroon, Tanzania, Indonesia, Vietnam) at 22 initiatives, 149 villages, and approximately 4000 households, finding that “REDD+ has not contributed significantly to perceived well-being and income sufficiency.”³⁰
 - A study by Shrestha et al. (2017) in Nepal concluding that “economic contribution of the REDD+ payment to the household economy is very nominal and is insufficient to invest in livelihood enhancement activities.”³¹
- Recent research showing that REDD programs typically fail to obtain meaningful Free, Prior, Informed Consent, and do not allow meaningful participation in planning or implementation:

²⁶ World Rainforest Movement, REDD: A Collection of Conflicts, Contradictions and Lies, February 2015.

²⁷ Osborne, T. et al., Indigenous Peoples and REDD+: A Critical Perspective, Indigenous People’s Biocultural Climate Change Assessment Initiative, November 2014.

²⁸ DHESCA Brasil, The Green Economy, Forest Peoples and Territories: Rights Violations in the State of Acre (2014).

²⁹ Poudyal, M. et al., Can REDD+ social safeguards reach the ‘right’ people? Lessons from Madagascar, 37 Global Environmental Change 31 (2016).

³⁰ Sunderlin, W.D. et al., REDD+ contribution to well-being and income is marginal: the perspectives of local stakeholders, 8 Forests 125 (2017).

³¹ Shrestha, S. et al., Contribution of REDD+ payments to the economy of rural households in Nepal, 88 Applied Geography 151 (2017).

- Research by Samndong et al. (2018) in the Democratic Republic of Congo finding that community participation was “characterized as ‘tokenism’ whereby the communities were consulted and informed, but never achieved managerial power or influence over the REDD+ pilot project. The decision for the communities to join REDD+ was not democratic and the information provided during the process of introducing REDD+ was not sufficient for the communities to make an informed decision to join or not.”³²
- Research by Spiric et al. (2017) finding that Mexico’s REDD+ readiness process had “low level of input legitimacy in so far as that the federal government environment agencies concentrate most decision-making power and key land-use sectors and local people’s representatives are absent in decision-making forums.” The study also found that REDD policy documents were dominated by the positions of government agencies and international conservation organizations, while the positions of civil society organizations and academics were partly or not at all reflected.³³
- Research documenting violence to Indigenous Peoples: A study by Howson (2018) in Kalimantan, Indonesia, concluding that “REDD+ is accelerating the very violence and environmentally destructive behaviours it claims to discourage.”³⁴

ii. Harms to California Communities: An International Forest Offset Program Will Exacerbate Environmental Justice Problems in California.

An international forest offset program would enable California refineries and other industrial polluters to continue to emit harmful greenhouse gases and co-pollutants into neighboring communities – predominantly low-income communities and communities of color – which would worsen California’s health and environmental justice crisis. The TFS does nothing to address or minimize these unacceptable harms to California’s communities that would result from the proposed project.

In California, studies have documented that industrial facilities with heavy emissions such as refineries, cement factories, gas and electricity production facilities are disproportionately located in communities of color and lower-income communities, and that these communities bear disproportionate air pollution burdens.³⁵ With an international forest offset program, some industrial polluters will emit more greenhouse gas pollution and co-pollutants, and for longer, than they would otherwise be allowed to in the absence of those offsets. Already overburdened communities living in some of the most polluted air basins in California would face added harms from this additional pollution. Harmful pollutants emitted by California refineries that cause serious health harms include known cancer-causing chemicals

³² Samndong, R.A., The participation illusion: Questioning community participation in a REDD+ pilot project in the Democratic Republic of Congo, 20 International Forestry Review 390 (2018).

³³ Spiric, J. et al., A dominant voice amidst not enough people: analyzing the legitimacy of Mexico’s REDD+ readiness process, 7 Forests 313 (2017).

³⁴ Howson, P., Slippery violence in the REDD+ forests of Central Kalimantan, Indonesia, 16 Conservation and Society 136 (2018).

³⁵ Pastor, M., et al., Minding the climate gap: what’s at stake if California’s climate law isn’t done right and right away, Program for Environmental and Regional Equity, University of Southern California, Los Angeles (2010).

like benzene, formaldehyde, and arsenic; smog-forming chemicals like nitrogen oxides, carbon monoxide, and volatile organic compounds; and particulate matter that causes lung and heart problems.³⁶

CARB must consider the harms from an international offsets program to California communities who will bear the burden. This is particularly critical in light of new research by Cushing et al. (2018) confirming that California's cap and trade program is perpetuating environmental health inequities in the state because it is incentivizing carbon offsets instead of local emissions reductions at the regulated facilities:

Our results indicate that, thus far, California's cap-and-trade program has not yielded improvements in environmental equity with respect to health-damaging co-pollutant emissions.³⁷

Notably, the study found that the majority of regulated facilities reported higher annual average local GHG emissions since the initiation of carbon trading over the 2011-2015 study period when data were available, and that communities of color and low-income communities were more likely to experience increases in greenhouse gases and co-pollutants from regulated facilities:

We found that facilities regulated under California's cap-and-trade program are disproportionately located in economically disadvantaged neighborhoods with higher proportions of residents of color, and that the quantities of co-pollutant emissions from these facilities were correlated with GHG emissions through time. Moreover, the majority (52%) of regulated facilities reported higher annual average local (in-state) GHG emissions since the initiation of trading. Neighborhoods that experienced increases in annual average GHG and co-pollutant emissions from regulated facilities nearby after trading began had higher proportions of people of color and poor, less educated, and linguistically isolated residents, compared to neighborhoods that experienced decreases in GHGs.

Importantly, the study recommended policies that incentivize local emissions reduction, rather than carbon offset projects which perpetuate the environmental justice crisis:

The incorporation of additional policy and regulatory elements that incentivize more local emission reductions in disadvantaged communities could enhance the local air quality and environmental equity benefits of California's climate change mitigation efforts.

³⁶ Office of Environmental Health Hazard Assessment, Analysis of Refinery Chemical Emissions and Health Effects, (Draft September 2017), <https://oehha.ca.gov/air/analysis-refinery-chemical-emissions-and-health-effects>; <https://oehha.ca.gov/media/downloads/faqs/refinerychemicalsreport092717.pdf>

³⁷ Cushing, L. et al., Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap and trade program (2011-2015), 15 PLoS Med e1002604 (2018) ("Cushing, 2018").

iii. Harms to Tropical Forests: The TFS Does Not Reduce the Drivers of Deforestation or Include Adequate Safeguards for Forest Biodiversity.

The TFS does not include robust criteria for environmental safeguards to protect tropical forests and their biodiversity. As detailed above, the TFS does not reduce demand for the commodities that drive deforestation and forest degradation, such as palm, soy, wood, pulp, and cattle, and REDD+ programs to date have not been effective in reducing deforestation. Furthermore, revenues from carbon offsets would not necessarily be directed to fund programs that directly counteract deforestation, as the distribution of revenue is at the discretion of the partner jurisdiction, presumably with the consent of the participating communities.

The TFS program does not include robust criteria for protecting biodiversity such as quantitative requirements for the maintenance of species diversity, forest structure, and canopy cover, nor mechanisms to ensure these criteria will be enforced in practice. This is particularly troubling because a 2016 review found that REDD programs have not been effective in implementing biodiversity safeguards, resulting in potentially poor outcomes for biodiversity: “Our review suggests that the current lack of guidance on how to implement the UNFCCC biodiversity safeguards in REDD+ could lead to mixed and potentially poor performance from national REDD+ initiatives.”³⁸ In this review, Panfil et al. (2016) examined how 80 existing REDD+ projects are addressing biodiversity issues, and found that projects lacked specific goals and logical links between goals, project interventions, and monitoring, suggesting “that the projects will have difficulty achieving and measuring biodiversity impacts.” The study concluded that “in practice, REDD+ is likely to have variable outcomes for biodiversity, depending on how biodiversity goals are articulated, implemented, and monitored.”

d. The TFS Fails to Fulfill its Objective to Meet Long-Term Climate Objectives.

CARB asserts that a tropical forest offsets program will help the state meet its long-term climate objectives.³⁹ However, subnational REDD initiatives financed through offsets have proven to be ineffective and inefficient at reducing GHG emissions. Carbon offset programs are a poor use of state staff time and financial resources and a dangerous distraction from the strategies that do work: ending fossil fuel production and use. Given the urgency for immediate, effective action to reduce carbon emissions from fossil fuels, as underscored by dire warnings of the recently released IPCC report on *Global Warming of 1.5°C*, CARB should show its commitment to meeting the state’s climate goals by implementing stronger emissions reductions in our own state that really matter, specifically, phasing out the state’s fossil fuel production, a rapid transition to zero-emission vehicles, and a just transition to 100% clean energy.⁴⁰ These measures would protect the health and wellbeing of all Californians, especially members of already over-burdened communities.

³⁸ Panfil, S. N. & C.A. Harvey, REDD+ and Biodiversity Conservation: A Review of the Biodiversity Goals, Monitoring Methods, and Impacts of 80 REDD+ Projects, 9 Conservation Letters 143 (2016).

³⁹ Draft EA at 12.

⁴⁰ Oil Change International, *The Sky’s Limit California: Why the Paris Climate Goals Demand That California Lead in a Managed Decline of Oil Extraction* (May 2018); Center for Biological Diversity, *Oil Stain: How Dirty Crude Undercuts California’s Climate Progress* (Nov. 2017).

II. The TFS Should Be Rejected Because the EA is Inadequate and Fails to Inform This Decision-making or Provide a Model for Other Programs.

a. The EA Ignores Potential Compliance Responses or Programs That May Incorporate the TFS or Use It as a Model.

CARB states that it intends for this standard to be used as a model for “other GHG emissions mitigation programs such as the International Civil Aviation Organization’s (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and other emerging programs.”⁴¹ It could also be used as a model for “other emission mitigation programs and emission trading systems that are seeking to assess and potentially include jurisdiction-scale programs that reduce emissions from tropical deforestation and thereby incentivize substantial greenhouse gas (GHG) emission reductions caused by tropical deforestation.”⁴² Furthermore, while this proceeding does not formally incorporate the TFS into the state’s cap-and-trade program, it is clear that CARB anticipates this could happen in the near future.⁴³

All of these are reasonably foreseeable results of CARB endorsing the TFS, yet the Draft EA fails to analyze their potential environmental consequences. The EA must address not only a project’s direct effects, but also the reasonably foreseeable indirect effects, and the effects of foreseeable activities that will occur as a result of the project.⁴⁴ The EA must identify and analyze both direct effects of a project and the “indirect or secondary effects” – those effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable.⁴⁵ This is particularly true since CARB anticipates that *other* jurisdictions potentially without environmental review requirements may adopt the TFS—and even may rely on this EA to determine the environmental consequences of doing so.⁴⁶ Thus, CARB must analyze the foreseeable environmental impacts of the very compliance responses it anticipates may happen (including use by ICAO for aviation offsets, use by other emission trading systems, linkage to cap-and-trade, and so on) *before* deciding whether to endorse the standard. Otherwise, the EA essentially becomes a make-work exercise that fails to inform this and future decision-making, and CARB will be endorsing a standard without fully understanding its implications.⁴⁷ For this reason, CARB should now reject the TFS; it simply does not have enough information on which to base its decision.

⁴¹ Draft EA at 2.

⁴² *Id.* at 1.

⁴³ *Id.* at 2. See also, CARB, Proposed Scoping Plan at 29, fn 40: “ARB staff identified the jurisdictional program in Acre, Brazil, as a program that is ready to be considered for linkage with California, and has committed to proposing regulatory standards for assessing tropical forestry programs and to proposing linkage with the program in Acre as part of a future rulemaking process.” Available at: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

⁴⁴ Public Resources Code § 21065; Cal. Code Regs., tit. 14, § 15378, subd. (a) (“CEQA Guidelines”).

⁴⁵ CEQA Guidelines, §§ 15358, subd. (a)(2); 15126.2, subd. (a); 15064, subd. (d)(2), (3); *Laurel Heights Improvement Ass’n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 396 (“*Laurel Heights*”).

⁴⁶ See Draft EA at 19, stating that one reason for preparing the EA is precisely because CARB knows the TFS will be used by other jurisdictions. Even if other jurisdictions must go through a public process for creating crediting programs (TFS, ch. 3(b), (c)), it is unclear how this will be enforced, or that these processes will necessarily include robust environmental review processes at all.

⁴⁷ The consequence of failing to comply with CEQA’s substantive mandates that foreseeable impacts be analyzed and mitigated is not only that the environment is left at risk, but also that Californians are denied the benefits of informed self-government. (*Laurel Heights*, 47 Cal.3d at p. 392.)

Furthermore, the EA should analyze the impacts—even if on a programmatic level—of these foreseeable actions, even if the TFS would only be used in some cases after a future rulemaking with a separate EA, such as with respect to linkage with cap-and-trade. CARB states that this EA provides a “programmatic” level of analysis,⁴⁸ indicating that a future, project-specific EA may rely on, or tier from, this programmatic EA.⁴⁹ However, given the EA’s failure to include foreseeable compliance responses, and its cursory and inadequate analysis as described below, CARB must not rely on this EA in any future rulemakings. Indeed, what this frustrating two-stage process (endorsement of the TFS, then adopting into regulation such as cap-and-trade) appears to do is to submerge or hide environmental impacts “by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.”⁵⁰ CEQA does not allow this.

Because CARB is proposing to endorse a TFS that it anticipates will be used as a model for future trading programs—in this or other jurisdictions—without having a real understanding of the potential impacts, and because—as explained in Section I above—there *are* significant unanalyzed impacts, CARB should reject the TFS.

b. The EA Provides a Superficial and Internally Inconsistent Analysis of Impacts and Therefore Fails to Propose Mitigation Measures for Those Impacts.

i. The Draft EA Fails to Analyze or Mitigate Impacts in California.

The Draft EA specifically declines to analyze impacts in California. Indeed, the EA states: “essentially all impacts that could result from the Proposed Project would take place outside the United States. . . .”⁵¹ This assertion is not accurate. For instance, there will be significant impacts to the air quality of California communities, particularly disadvantaged communities already suffering from disproportionate amounts of air pollution under the state’s current cap-and-trade program, from the use of an offset program that allows California industrial facilities to continue polluting by purchasing emissions offsets created elsewhere. Cushing et al. (2018) found that rather than investing in green projects within the state, an astounding seventy-five percent of offset credits went towards projects outside of California.⁵² Meanwhile, from 2011-2015, disadvantaged communities within California experienced *increases in both GHG emissions and co-pollutant emissions* from regulated facilities disproportionately located in their neighborhoods.⁵³ Incentivizing out-of-state projects while actively harming California’s disadvantaged communities undermines the intent of AB 398.⁵⁴ The EA’s failure to discuss these impacts renders it inadequate to support the TFS.

⁴⁸ See e.g., Draft EA at 6.

⁴⁹ Public Resources Code §§ 21068.5, 21094, subd. (a), (b).

⁵⁰ *Bozung v. Local Agency Formation Comm.* (1975) 13 Cal.3d 263, 284; see also *Orinda Ass’n v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171 quoting *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188, 195-196; Guidelines, §§ 15126.2, subd. (a); 15378, subd. (a).

⁵¹ Draft EA at 5.

⁵² Cushing, 2018.

⁵³ *Ibid.*

⁵⁴ Note that the Office of the Senate Floor Analyses stated its understanding that, of the offset credits allowed, AB 398 “[r]equires 50% of all offsets to be *in* California.” See Senate Floor Analysis for AB 398 at 5 (emphasis added).

ii. The EA's Cumulative Impacts Analysis is Inadequate.

CARB's cumulative impacts analysis for the TFS is apparently taken from the EA for California's 2017 Scoping Plan. This is bizarre for several reasons, and serves to highlight further contradictions and inadequacies in the rest of the impacts analysis.

The 2017 Scoping Plan EA looked at U.S. (and Canada) forest offset programs and impacts, but not at (other) international programs or impacts. Therefore, the Scoping Plan EA cannot substitute for a cumulative impacts analysis on the TFS project in this (TFS) EA. Despite the TFS EA's statement to the contrary,⁵⁵ the Scoping Plan EA does not provide any analysis on which the TFS EA can rely. Moreover, the *specific* impacts analysis in the TFS EA looks only at *international* impacts, as explained above. By "relying" on the Scoping Plan EA, which only looked at *domestic* impacts, for its *cumulative* impacts analysis, the TFS EA makes entirely opposite and contradictory assumptions about where impacts will occur.

Further highlighting the incongruity between the cumulative and specific impacts analyses, none of the compliance responses listed in the TFS EA cumulative impacts section (from the Scoping Plan EA)⁵⁶ are evaluated in the Draft EA's specific impacts analysis. Further, the TFS EA does not provide any context for evaluating the impacts of this particular decision on the TFS in relation to (or in addition to) those compliance responses in the cumulative impacts section. It simply regurgitates some of the generalized impacts identified in the Scoping Plan EA, and nothing more. Because of lack of any analysis of the TFS's impacts in conjunction with other compliance responses in the cumulative impacts analysis, the Draft EA's purported cumulative impacts analysis is of no use in determining whether CARB should endorse the TFS.

iii. The EA's Impacts Analysis and Therefore Mitigations Measures are Inadequate.

The EA's analysis of impacts—and proposed mitigation measures—is hardly an analysis at all. Each sector cuts and pastes identical assumptions that are provided without support. For instance, every single sector relies on the same word-for-word assumption that:

Implementation of the Proposed Project could result in planning efforts and implementation of actions within external jurisdictions that reduce deforestation. The reasonably foreseeable changes to land uses would effectively limit degradation of the existing environment and would be intended to result in: forest protection, forest management and forest production processing and marketing, and increased sustainable agriculture, ranching, silviculture, and agroforestry activities associated with the restoration of degraded areas, so as to value forests and reduce pressure for deforestation of new areas.

⁵⁵ "The 2017 Scoping Plan EA, which referenced the potential development of a jurisdictional sector-based crediting approach to address emissions from tropical deforestation, provided a program level review of significant adverse impacts associated with the reasonably foreseeable compliance responses that appeared most likely to occur because of implementing the recommended measures." (Draft EA, p. 34.)

⁵⁶ Draft EA at 34 et seq.

The EA lacks substantial evidence—or any evidence—to support these assertions. Rather, as explained in Section I above, there is significant evidence that undermines them—demonstrating that a REDD-type offset program could in fact harm forest ecosystems. The Draft EA entirely ignores such evidence.

The resulting superficial and unsupported analysis results in similarly superficial and unhelpful conclusions about potential impacts and suggested mitigation. For instance, the assumption that the TFS will stem deforestation results in the meaningless conclusion that land use and planning impacts are potentially significant because, in order to avoid the impact, local jurisdictions would need to have in place land use plans “adopted for the purpose of avoiding or mitigating an environmental effect,” but “it is not certain [the jurisdictions] would do so.” The mitigation measure is of little help since “CARB lacks jurisdiction to ensure [an acceptable land use plan] is implemented.” Instead of preparing a Draft EA that provides no actual insight, CARB could have prepared one that looked at the existing conditions, plans, and impacts in areas it anticipates this TFS will be used, such as in the airline sector, Acre, Brazil, and California’s own cap-and-trade program. Such an analysis, for instance one that looks at existing land use and deforestation plans in Brazil, would have been significantly more useful to CARB’s decision-making.

Furthermore, the EA fails to acknowledge or analyze well-known impacts likely to arise from the TFS, given numerous examples and information on problems with applying REDD standards internationally, as described in Section I above. These include, among many others, harms to indigenous communities, failures of forest offset programs to guarantee GHG reductions, and harm to forest ecosystems from leakage and other drivers.

Overall, the internally inconsistent assumptions in the EA’s impacts analysis, the lack of any substantial evidence supporting various assertions that impacts will not be significant, the lack of analysis of many foreseeable compliance responses or harms to California communities, the lack of enforceability of mitigation measures, and the boilerplate descriptions of the benefits of the program to forests despite evidence to the contrary, cause this EA to be wholly inadequate to support a decision adopting a TFS. CARB must reject it.

c. The EA Alternatives Analysis Fails to Provide a Meaningful Evaluation.

The alternatives analysis is the “the core of an EIR.”⁵⁷ An agency “may not approve a proposed project if feasible alternatives exist that would substantially lessen its significant effects.”⁵⁸ Therefore, lead agencies must examine a reasonable range of alternatives that feasibly meet most of the project’s basic objectives while avoiding or substantially reducing the significant effects of the project, even if these alternatives “would impede to some degree the attainment of the project objectives, or would be more costly.”⁵⁹ The examination of alternatives

⁵⁷ *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d. 553, 564.

⁵⁸ *Save Panoche Valley v. San Benito County*, 217 Cal. App. 4th 503, 521 (2013) (citations omitted); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-31, 733 (“A major function of the EIR is to ensure thorough assessment of all reasonable alternatives to proposed projects by those responsible for the decision” (citation omitted)).

⁵⁹ CEQA Guidelines, § 15126.6(a), (b).

must “include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.”⁶⁰ “An inadequate discussion of alternatives constitutes an abuse of discretion.”⁶¹

Here, the alternatives analysis fails to provide a meaningful analysis of the alternatives. As with the impacts analysis, it provides no support for its assertions of the benefits and harms of each alternative. For example, CARB states that its “no project” alternative would result in deforestation without providing any basis for making that assumption. To the contrary, as provided in sections I.b.2 and I.c.3 above, there are many examples that show that REDD programs are not necessarily additional to existing programs within countries to reduce deforestation, and that REDD programs fails to address the drivers of deforestation. CARB confronts none of these examples or studies in its EA, instead relying on broad conjectures without evidence.

Additionally, the EA is supposed to provide a reasonable range of alternatives that meet most of the project’s objectives, yet the analysis includes an alternative that on its face fails to meet five of the six objectives: endorse a standard that does not seek to disincentivize mineral extraction (Alternative 3). Five of the six objectives relate to reducing GHG emissions, climate change, and increasing social and environmental safeguards. At the same time, mineral extraction is one of the primary sources and drivers of GHG emissions, climate change, and social and environmental injuries. A 2016 global analysis found that the carbon emissions that would be emitted from burning the oil, gas, and coal in the world’s *currently operating* fields and mines would fully exhaust and exceed the carbon budgets consistent with staying below 1.5°C or 2°C.⁶² Further, the reserves in currently operating oil and gas fields alone, even excluding coal mines, would lead to warming beyond 1.5°C. An important conclusion of the analysis is that *most* of the existing oil and gas fields and coal mines will need to be closed before their reserves are fully extracted in order to limit warming to 1.5 degrees.⁶³ Some existing fields and mines will need to be closed to limit warming to 2 degrees.⁶⁴ In short, there is no room in the carbon budget for *new* fossil fuel extraction *anywhere*.⁶⁵ Additionally, most of the world’s existing oil and gas fields and coal mines will need to be closed before their reserves are fully extracted to meet a 1.5°C target. There is, therefore, no justification for CARB to advance a climate change standard alternative that would not disincentivize mineral extraction.

⁶⁰ CEQA Guidelines, § 15126.6(d).

⁶¹ *Kings County Farm Bureau*, 221 Cal.App.3d at 731, citing *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.App.3d 376, 404-406.

⁶² Oil Change International, *The Sky’s Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (September 2016), available at <http://priceofoil.org/2016/09/22/the-skys-limit-report/>.

⁶³ Oil Change International, *The Sky’s Limit California: Why the Paris Climate Goals Demand That California Lead in a Managed Decline of Oil Extraction*, May 2018, at 7, 13, available at <http://priceofoil.org/ca-skys-limit>.

⁶⁴ Oil Change International, *The Sky’s Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (September 2016) at 5, 7.

⁶⁵ This conclusion was reinforced by the IPCC Fifth Assessment Report which estimated that global fossil fuel reserves exceed the remaining carbon budget (from 2011 onward) for staying below 2°C (a target incompatible with the Paris Agreement) by 4 to 7 times, while fossil fuel resources exceed the carbon budget for 2°C by 31 to 50 times. See Bruckner, Thomas et al., 2014: Energy Systems. In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press (2014), http://ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_chapter7.pdf at Table 7.2.

d. The CEQA Exemption for Regulatory Action Taken to Protect the Environment Does Not Apply.

CARB states that “even if viewed as a ‘project’ under a conservative lens, [the TFS] is appropriately considered exempt from CEQA as an action taken by a regulatory agency for protection of the environment. (See 14 CCR Section 15308.)”⁶⁶ Where there is a reasonable possibility that a project or activity may have a significant effect on the environment, an exemption is improper.⁶⁷ CARB’s assertions that its TFS will have a beneficial effect on forests and on the climate are little more than speculation, with no substantial evidence to support them. To the contrary, as described in Section I above, there is ample evidence that REDD-type programs fail to protect forest ecosystems and do little to stem GHG emissions. CARB must engage with these studies and examples, and cannot simply claim an exemption without any evidence that its action will, in fact, protect the environment.

Conclusion

In general, the TFS remains deeply problematic, and CARB’s proposal to endorse the TFS without having fully addressed the many pitfalls raised herein, by indigenous rights groups, and by environmental justice communities is troubling. We request that CARB reject the TFS, and focus instead on crafting regulations that will end fossil fuel extraction and combustion, reduce California’s deforestation footprint, provide direct benefits to California communities, and deliver the large-scale, rapid GHG reductions needed to avoid the worst climate catastrophes.

Please do not hesitate to contact us with any questions.

Sincerely,

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⁶⁶ Draft EA at 5.

⁶⁷ *Wildlife Alive v. Chickering*, (1976) 18 Cal. 3d 190.

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135

August 29, 2019

The Honorable Mary D. Nichols, Chair
California Air Resources Board
1001 I Street, Suite 2828
Sacramento, CA 95814

We, the undersigned California organizations and residents, urge the California Air Resources Board to reject consideration of the Tropical Forest Standard (TFS), which would lay the groundwork for accepting Reduced Emissions from Deforestation and Degradation (REDD) offset credits into California's carbon trading system.

Preservation of tropical forests is critical for conserving biodiversity; providing homes, cultural resources and livelihoods for millions of people; ensuring the survival and ways of life for many Indigenous Peoples, and for protecting our global climate. But the TFS proposed by the California Air Resources Board is deeply misguided and would undermine the integrity of California's climate policies.

Carbon offsets perpetuate pollution

The Tropical Forest Standard has been created as a preliminary step to allowing REDD offset credits into California's carbon trading system. Opening the floodgates to these offsets encourages polluters to avoid reducing their emissions here in the state. At best, offsets create *zero* emissions reductions. Under California's carbon trading system, they actually enable an increase in industrial emissions by a far greater amount than otherwise allowed by AB32. This has significant health impacts for fenceline communities in California – the majority of whom are people of color -- who live near major greenhouse gas emitters. California cannot afford to adopt policies that will drive climate-related investments outside of California, at the cost of continued emissions in our communities.

Tropical forest carbon offsets pose risks to indigenous and human rights

REDD projects have a well-known and recorded history of contributing to illegal actions, violence, forced decision-making, land grabs, and other human rights abuses for many indigenous groups and forest-dwelling people around the globe. REDD projects divide Indigenous Peoples and subject them to grossly disproportionate economic power, and intimidation and coercion. It is practically impossible for ARB to monitor international forest offset programs in foreign jurisdictions to prevent these abuses and ensure compliance with the TFS's human rights standards. Indeed, the proposal does not provide California with any additional oversight or mechanisms by which it can ensure those violations do not occur under the Tropical Forest Standard.

California should not validate a methodology that has repeatedly demonstrated failure

While many problems exist with offsets in general, there are significant issues unique to REDD projects that make them an inherently flawed and ineffective means of protecting tropical forests. Many of these problems are outlined, although not adequately addressed, in the TFS's environmental impact assessment, including the problems of permanence and non-additionality. Simply put, tropical forest carbon offsets allow *certain, permanent* harm (the emission of more GHGs from industrial sources) in exchange for hoped-for *uncertain, temporary* carbon sequestration. Because these problems are so intractable, no jurisdiction in the world accepts REDD credits into its compliance market. Adopting the TFS would harm California's international credibility and delay meaningful action to actually protect tropical forests. Were California ever to allow REDD carbon offset credits to enter its cap and trade

135

135-1 (cont.)
system, it would undermine the integrity of our climate policy and violate AB 32's requirement that all emissions reductions be "real, additional, quantifiable, permanent, verifiable and enforceable".

Because of the reasons stated above, we strongly urge the ARB to reject consideration of the Tropical Forest Standard (TFS), and any attempts to accept Reduced Emissions from Deforestation and Degradation (REDD) credits into California's carbon trading system. Instead, we encourage California to take true climate leadership by piloting alternatives to offsets, such as ending public procurement of tropical deforestation-linked commodities and reducing imports of those commodities into our market.

Sincerely,

350 Bay Area
350 Conejo / San Fernando Valley
Amazon Watch
Asia Pacific Environmental Network
Bay Area Coalition for Headwaters
Biofuelwatch
California Communities Against Toxics
California Environmental Justice Coalition (over 70 groups)
California Safe Schools
Central California Asthma Collaborative
California Environmental Justice Alliance
Center for Biological Diversity
Central California Environmental Justice Network
Chinese Progressive Association, San Francisco
Clean Water Action
Climate Hawks Vote
Climate Justice Alliance
Coalition for Clean Air
Community Food and Justice Coalition
Del Amo Action Committee
Environmental Protection Information Center
Filipino American Coalition for Environmental Solidarity
Food & Water Watch
Food Empowerment Project
Friends of the Earth
Global Justice Ecology Project
Grassroots International
Greenaction for Health and Environmental Justice
Greenpeace
Indigenous Environmental Network
International Campaign for Responsible Technology
International Indian Treaty Council
Just Transition Alliance
Lost Coast League
Oakland Climate Action Coalition
Oakland Institute
Physicians for Social Responsibility- Los Angeles

PODER (People Organizing to Demand Environmental & Economic Rights)
Rainforest Action Network
SanDiego350
Sequoia ForestKeeper
Service Employees International Union West
Shawnee Forest Defense!
SoCal 350 Climate Action
Sunflower Alliance
West Berkeley Alliance for Clean Air and Safe Jobs
Women's Earth and Climate Action Network
Valley Improvement Projects

Individuals (affiliation listed for identification purposes)

Katie Loncke, Buddhist Peace Fellowship
Kris Chan, Chinatown Community for Equitable Development
Jason Li, Chinatown Community for Equitable Development
Karen Law, Chinatown Community for Equitable Development
Tiffany Do, Chinatown Community for Equitable Development
Lorna Xu, Chinatown Community for Equitable Development
Michael Wong, Chinatown Community for Equitable Development
Sophat Phea, Chinatown Community for Equitable Development
Frances Huyhn, Chinatown Community for Equitable Development
King Cheung, Chinatown Community for Equitable Development
Maricela Mares-Alatorre, El Pueblo Para el Aire y Agua Limpia de Kettleman City
John Mataka, President, Grayson Neighborhood Council
Kana Kobayashi, Nikkei Resisters
Yumi Kobayashi, Nikkei Resisters
Don Misumi, Nikkei Resisters
Miya Summers, Nikkei Resisters
Joseph Tsuboi, Nikkei Resisters
June Brashares
Shannon L Griffin
Susan Heath
Humberto Lugo
Brenda Jo McManama
Cynthia Mellon
Shiila Safer
Mari Rose Taruc
Erica Taylor
Craig Wong

144

California Air Resources Board
1001 I Street
Sacramento, CA95814

August 29, 2019

Dear California Air Resources Board members and staff,

I am a professor and researcher with approximately two decades of experience investigating the intersection of climate change mitigation in tropical forests and carbon markets. I submit this comment, not as a representative of any university to which I am affiliated, but as an individual and soon to be California taxpayer, as I have recently accepted a position at University of California-Merced. Given my significant field and desk-based research on this subject, I am compelled to submit a public comment to express my deep concerns about the Tropical Forest Standard (TFS) that will link California's carbon market and legally required emission reductions to insecure and flawed offsets in tropical forests. The current fires raging in the Amazon and the destructive agricultural policies of Brazilian president Bolsonaro, provide startling reminders of the impermanence inherent in such offsets and the real dangers for California to include them as part of its climate strategy.

I want to be clear that I recognize deforestation as a major contributor to climate change and wholeheartedly support avoided deforestation and sustainable forest and land-use activities as important elements of the solution. However, carbon markets have proven ineffective at reducing forest-based emissions. In my view, the carbon market, which is designed as a cost efficiency mechanism, is deeply flawed when it intersects with forest ecosystems that are often considered the low hanging fruit for climate change mitigation. According to Nicholas Stern, "[c]urbing deforestation is a highly cost-effective way to reduce emissions"¹ and this assumption has generally been the basis for investment in forest-based carbon offsets, particularly in tropical forests.

However, climate change mitigation in tropical forests requires an extensive and costly process of carbon monitoring and measurement, reporting and verification (MRV). The low carbon price combined with high costs of project implementation consistently fail to produce the finance necessary for transforming the economic drivers of deforestation. In the Amazon, the main drivers of deforestation are the large-scale production of soy, palm oil, beef and timber. As carbon market finance falls significantly below the opportunity costs of forest risk commodities, offsets tend to target local and Indigenous forest communities, who receive negligible financial benefits for their participation. This ultimately causes resentment as their traditional land uses are demonized, and resistance as these activities are blocked. This is deeply problematic because while local and Indigenous land-use practices that have been recognized for protecting forests are prevented, the main drivers of deforestation continue unabated. Therefore, serious climate justice concerns exist with such initiatives, which in the end, often lack sufficient local support to be successful. Jurisdictional programs that rely on subnational governments will suffer from similar problems given low and volatile market prices and constant political turnover that make long-term carbon storage in forests subject to reversals.

¹ Stern, N. and Stern, N.H., 2007. *The economics of climate change: The Stern review*. Cambridge University press.

Therefore, I strongly recommend CARB not endorse the TFS that will link California's carbon market to tropical forests, and instead consider alternatives. At the conclusion of the November 2018 CARB meeting Chair Nichols requested an exploration of alternatives to the TFS. While several alternatives exist, it is not clear that CARB has seriously considered any of them. Alternatives such as supporting local and Indigenous land rights and traditional forests practices, zero deforestation procurement policies and banning Amazon crude represent key alternatives that CARB should consider. Investing in a portfolio of these and other alternatives would send an important signal to other jurisdictions demonstrating an effective and equitable approach to climate change mitigation in tropical forests.

SUPPORTING THE ROLE OF LOCAL AND INDIGENOUS PEOPLES

144-1
Local and Indigenous peoples play a critical role in addressing climate change. In particular, secure land rights and support for Indigenous forest and agricultural practices can have significant climate benefits according to the recent IPCC report on land. Authors recognize that "Insecure land tenure affects the ability of people, communities and organisations to make changes to land that can advance adaptation and mitigation"². The IPCC report also recognizes the importance of Indigenous Peoples land use practices for meeting the goals of the Paris Agreement. Authors argue, "[a]gricultural practices that include Indigenous and local knowledge can contribute to overcoming the combined challenges of climate change, food security, biodiversity conservation, and combating desertification and land degradation."³ Therefore, alternatives to carbon markets include local community and Indigenous land rights, and support for their climate change and forest strategies.

DEMARCATON OF INDIGENOUS LAND

Indigenous lands have been proven to have an inhibitory effect on deforestation particularly at the forest frontier⁴. Even under population pressures and contact with the non-indigenous world, Indigenous communities tend to keep their forests intact⁵. While conservation areas are also effective strategies for protecting forests, they tend to be at farther distances from the frontier. Indigenous communities, therefore, hold the line against the movement of the deforestation frontier. Research shows that when Indigenous Peoples and forest communities have their land tenure rights recognized they are better stewards of forests than even governments⁶. Therefore, investment in Indigenous and forest community land rights is an important strategy for reducing deforestation.

LOCAL AND INDIGENOUS-LED FOREST MANAGEMENT

Indigenous peoples with a demonstrated history of sustainable forest management can provide critical guidance for building an alternative approach to climate change mitigation in forests based on traditional ecological knowledge. According to Rights and Resources Institute forests managed

² IPCC, 2019. Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Intergovernmental Panel on Climate Change.

³ Ibid.

⁴ Nepstad, D., Schwartzman, S., Bamberger, B., Santilli, M., Ray, D., Schlesinger, P., Lefebvre, P., Alencar, A., Prinz, E., Fiske, G. and Rolla, A., 2006. Inhibition of Amazon deforestation and fire by parks and indigenous lands. *Conservation biology*, 20(1), pp.65-73.

⁵ Ibid.

⁶ White, A., 2011. Cash alone will not slow forest carbon emissions. *Nature News*, 471(7338), pp.267-267.

144-1 (cont.)
by Indigenous and local communities account for nearly 300 billion metric tons of carbon, equal to 33 times the global energy emissions for 2017. Therefore, one alternative promotes the development of Indigenous and community led climate change mitigation strategies in tropical forests. The Indigenous community of Sarayaku in the Ecuadorian Amazon, for example, has proposed a powerful model called Kawsak Sacha or the Living Forest, which is a comprehensive proposal of the Kichwa people about living with the natural world in a sustainable and harmonious way. Kawsak Sacha also has important benefits for climate change mitigation and exemplifies the types of initiatives that should be supported, not through a carbon market or associated with offsets, but through other financial sources such as a fund.

ZERO DEFORESTATION POLICY

The UN's sustainable development goals pledge to halt deforestation and biodiversity loss, protect and restore forests, and promote sustainable forest management by 2020⁷. A growing number of companies (such as Unilever and Ikea), countries (France and Norway) and several initiatives have made commitments to reduce deforestation. Key initiatives include the Consumer Goods Forum, a network of 400 of the largest consumer goods retailers that have committed to net zero deforestation by 2020. Emerging from the UN's climate summit in 2014, the New York Declaration on Forests, is a voluntary and non-binding initiative to halve the deforestation rate by 2020 and end it by 2030. California might soon adopt such a policy as the state is poised to institute a zero-deforestation policy through the California Deforestation-Free Procurement Act (AB 572). This legislation would ensure that any company selling forest commodities (wood: paper and pulp, palm oil, soy, beef, coffee, cocoa, and rubber) to the state have a credible and robust *No Deforestation No Exploitation No Peat* policy and can provide evidence through regular monitoring and reporting. This is a step in the right direction.

BAN AMAZON CRUDE

California's energy supply is deeply tied to the Amazon. The vast majority of Amazon crude is currently imported by the US and of the 23 US refineries that use Amazon crude 74% are located in California⁸. According to a report by Amazon Watch "California's refineries are the worst offenders, processing an average of 170,978 barrels (almost 7.2 million gallons) of Amazon crude every day, accounting for roughly 60 percent of total global exports of Amazon crude from Ecuador, Peru, and Colombia, and 74 percent of all the Amazon crude exports that enter the United States."⁹ The irony of the TFS is that it could benefit the same oil companies refining Amazon crude. According to Zoe Cina-Sklar of Amazon Watch, "TFS could allow oil refiners, which are purchasing oil from Ecuador to turn around and buy offset credits from the same regions in Ecuador that have been devastated by oil drilling". Instead California should ban all imports from the Amazon which would not only help keep fossil fuels underground in the Amazon it would also help reduce the risk of deforestation from other forest risk commodities. Fossil fuel exploitation begins with the construction roads, which notoriously open up forests to further deforestation. Therefore, keeping fossil fuels underground in the Amazon through a ban on Amazon crude imports could help keep forests intact.

⁷ <https://sustainabledevelopment.un.org/sdg15>

⁸ Amazon Watch., 2016. From Well to Wheel: The Social, Environmental, and Climate Costs of Amazon Crude. Oakland, CA.

⁹ Ibid

144-1 (cont.)

DIVESTMENT AND DEFORESTATION-FREE INVESTMENT

Another alternative strategy is divestment from companies associated with tropical deforestation and investment in sustainable alternatives. There has been a growing call for financial institutions such as banks and investors (including asset managers, pension funds and insurance companies) to address deforestation in tropical forests. Palm oil is the most rapidly growing driver of deforestation and has been the commodity targeted by countries and investment firms for divestment. Since 2012, Norway's sovereign wealth fund, Government Pension Fund Global, with approximately \$1 trillion in assets, has divested from more than 60 companies associated with deforestation, 33 of which produce palm oil unsustainably¹⁰. These companies are involved in the production of forest risk commodities particularly palm oil in the tropical forests of Southeast Asia, West Africa, and Oceania. In 2016, Dimensional Fund Advisors, a major US investment firm with \$445 billion of assets, divested two of its sustainability portfolios of all palm oil plantation companies.

In this public comment, I have highlighted a few alternatives to the TFS that are recommended for CARB's consideration. California is internationally recognized as an innovative and bold climate leader, however the TFS, which is rife with flaws, is not aligned with this vision. California has the opportunity to demonstrate true leadership by piloting alternatives to carbon offsets that are more effective, sustainable and just. If CARB members and/or staff have interest in further exploring the alternatives outlined in this statement and have any questions, I stand ready to support.

Most sincerely,

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¹⁰ Taylor, M. 2019. Norway's wealth fund ditches 33 palm oil firms over deforestation. *Reuters*. February 28, 2019.

CARBON CONFIDENTIAL

A California Crime Caper

(with apologies to James Ellroy)

1

(OAKLAND, 2:00 P.M., 8/6/13; KENYA, 6:00 A.M., 12/25/17; BRAZIL, 4 P.M., 8/20/19)

August 2013. Two hundred people are arrested protesting emissions at California's single largest greenhouse-gas polluter, the Chevron oil refinery in Oakland.

Christmas Day, 2017. Some 341 houses of Sengwer people are burned by the Kenya Forest Service in a sweep to evict them from the Embobut forest. One Sengwer man is killed, another hospitalized with gunshot wounds.

August 2019. Frontiers of fire, much of it deliberately set, sweep through swathes of Brazil's Amazon forest. Across the region, indigenous people fear for their lives.

September 2019. CARB meets to decide whether to endorse the Tropical Forest Standard.

So what's the tie-in?

2

(KYOTO, 3:00 A.M., 12/11/97)

Flashback. Kyoto, Japan's old cultural capital. It's 1997, the first big climate powwow following Rio in '92.

Scope the scene. Suits with passports from all over mill around day and night. Global warming yak percolates through meeting halls, corridors, hotel rooms, cocktail receptions.

In the end there's some kind of agreement. Full marks for foresight to the neolib and econo-geeks at Washington NGOs and think tanks. They've been biding their time in the wings since before the show started. Just when a North-South standoff looms, these tradesters have the genius to slip in the carbon market idea to keep *gringo* corporations happy while tossing a few sops to *anti-imperialista* elites.

Al Gore loves it. Reps from Brazil, the Philippines, Ghana shrug and accept it. Everybody drags their pens across the treaty in the small hours of the last day.

Result: swerve. In the next 20 years little happens. Smooth sailing for oil, coal and gas. Hell, however much the UNFCCC talks about carbon, it never even *mentions* fossil fuels. Check the documents. And any attention to their role in competitive profit-taking? Forget it.

Ditto the European carbo-trading setup that gets under way a few years after Kyoto. Ditto the other carbon markets that lurch into life from Quebec to Shanghai.

Upshot: mountains of paper pile up about how many carbon "allowances" to give which companies and what might "offset" what. Predictably, one after another carbon market scheme loses credibility. Revision and "reform" lead to delays. Delays lead to more delays. The globe heats up.

But the end result is sweet. Because biz is still happy. The black stuff is still coming out of the ground. And the zinger is that the carbon tradesters can cover themselves with green while pointing the finger at climate denialists as the real villains of the piece.

3

(SACRAMENTO, 1/1/08 – 11/8/18)

After 20 years, the elite crowd are still on board, from here to Hyderabad.

OK, maybe the *shlick* is running a little ragged. Emissions are up. Polar melts loom. Storms crash the coasts. Farmers are looking around at empty skies and parched soils: *what the hell?*

But note: emissions trading and carbon offsets are still doing that zombie shuffle,¹ sucking the life out of climate action.

Coal, oil and gas ride high and dry. Suits dispute carbon prices, moot taxes, jiggle molecule regulation. Fracking starts to add its bit. IPCC scientificos sit it out, repeating their mantra that GHG molecules are the problem, so professional GHG molecule management must be the solution. Translation: don't push us to take a stand on fossil capital,² or this carbon trading nonsense, or the pointless land grabs or anything else. If you do, we'll quickly lose our hard-won priestly status as your abstemious emissaries from a molecular global Nature.³ Post-Cartesian rules apply, backed up by 500 years of enclosure plus added 20th-century fillips.⁴

The lesson is clear. You need to keep fossil fuels in the driver's seat in the face of public unrest? Stick to this thing called "carbon." Don't do anything about coal, oil and gas. String C-trading and offsets along as long as possible. Cite the IPCC when you polish up your jive about how "all carbon molecules are the same" and how "reductions" in the forest sector "complement other emission reduction strategies."⁵

It's the way to go. Keep on message: forests can take up some of the slack while we all pretend to be figuring out what to do.

And don't forget that keeping those forests ready to soak up smoke is *our* gig, not the job of some no-name indigenous peoples or peasants. You want to put forests and their residents to work subsidizing fossil industry and transport for a few more years? You need us in the role of *kapos*. We've got the goods. We've got the knowledge. We've got the saps. We dish out the discipline.⁶ And plenty of side deals for the boys and girls. Our show, our credits.

It's the race card, rebooted in 21st-century scientific/bureaucratic style. More than a few right-on white enviros and their publics are comfortable with it, to the point of not even noticing. Cue greenie applause for the Paris Agreement and other vamped-up carbo-trading moves.

Sacramento takes note. One message in particular filters through. Don't deny that carbon markets and offsets have "problems." Turn that to advantage. Treat them as the ideal invitation to California to sweep in with signature hip solutions that take advantage of the "lessons from failures elsewhere."

Sure, the CDM and REDD+ amount to less than zilch, climate-wise. They always will. But doesn't that just show how much offsets need that special California *oomph*? Your old offsets pro-fossil-fuel strategy is still a good bet for biz, in the Golden State as much as anywhere else. It just needs sprucing up.

Just ask good old Governor Moonbeam, that ultimate hipster politico, who after hobnobbing with oil men tells indigenous peoples protesting California's fracking/carbon trading combo to get lost, because "we have to have our automobiles," while still buffing himself up as a climate hero.⁷

Or rewind to 2008, when Assembly Bill 32 comes out. The lawmakers tell CARB to hunt up "the most effective strategies and methods to reduce GHGs, manage GHG control programs, and to facilitate the development of integrated and cost-effective regional, national, and international GHG reduction programs."

Dig that "cost-effective." Groove on that "international." You don't need to go to codebreaker school to get the gist. What we're looking for most of all is a cheap *substitute* for climate action that goes abroad while leaving California manufacturing, services and agribiz the hell *alone*.

So the word comes down. CARB staffers look at each other and *get it*. We ride this one to the end. This is what we do. Commendations and promotions at the finish. Climate change? Don't make me laugh.

The AB 32 Scoping Plan touts "tropical forests" as "mitigation" opps. It's bound to stir outrage. But take it slow. Organize behind the scenes, until it becomes inevitable. One trick is to break up what you're doing into fragments so that there's no key moment when anybody can grab on to any single bit of it and say *wait a minute*.

Cue the Tropical Forest Standard. Is the TFS itself an offset program? Nix. Offsets – who, me? "The TFS is not proposing, nor would it result in, any new offset credits being eligible for use in the California Cap-and-Trade Program ... CARB's endorsement of the TFS would have no connection to the Cap-and-Trade Program, and any such future connection would require a future rulemaking proceeding and a separate Board vote. Therefore, no response is necessary to comments concerning CARB's Cap-and-Trade Program."⁸

Get down and *soothe* those uncivil troublemakers. What are you getting so het up about the TFS for? This little piece of paper never offset anything.

And if it did some day wind up lubing offset scams swindling and choking your brothers and sisters in California and around the world? That rebop would be strictly minor-league anyway. "The effect of the TFS on the overall compliance instruments market would be minimal."⁹

Memo to all you concerned forest hepcats out there: *relaaaaaaax*.

It's only later, CARB hopes, when the TFS component is brought out of storage and snapped together with the other parts of the offsets apparatus in final assembly – and it turns out that offsets ain't so minor after all, and are even more destructive than anyone figured – that the penny might drop. But by then it'll be too late. Heh-heh, you critics missed your chance. *Suckers*.

Dig it: this year you can tell the refusenik brigade it's too *early* to object. Next year, you can tell them it's too *late*.

It's a pro move, the kind that's been honed by the World Bank over decades to get their wacko schemes over the hump of popular resistance. Welcome to deniability, baby. Our hands are *clean*.

And don't forget to look "open" while all this is going on. This is 2018, after all. "Democratic" spin is part of the package. Especially here in California.

Sure, there are backfire risks. Count on it. Jesus, look at what happened to Gorbachev. But with a little care you can minimize the dangers.

The key is to rig the stage beforehand so that as little as possible is left to democratic chance. Choose as many of the actors as you can. Keep that agenda narrow enough to exclude any alternatives. But don't be an obvious control freak. Get that balance right. Make it look good from the outside.

4

(SACRAMENTO, 11:46 P.M., 11/9/18 – 8:00 A.M. 11/15/18)

So the comments start swarming in on TFS and its draft environmental analysis. CARB staffers roll up their sleeves and order in pizza. Once again, time to raise shields on the USS *Enterprise*.

First up are objections that point to the obvious links between endorsing the TFS and getting a full-bore offsets industry clanking away. CARB staffers trade winks. We've got this one covered. Under the law, we don't even *need* to reply to this because TFS by itself doesn't have any environmental effects at all. It's just a piece of paper sitting around that people outside California might – *might* – use someday to boost their profits from supposedly protecting forests. Anyway, TFS *says* it's about protecting the environment, so what's all this about it possibly doing harm to it instead?

Abuses of forest communities in hundreds of previous forest offset schemes? Cambodia, Brazil, Mozambique, Madagascar, PNG? Mount Elgon, Ulu Masen? Again, we're not compelled by law to say anything in response to this. Hell, this objection isn't even about "the environment". Never mind that social abuses are, and lead to, environmental abuses, when those who care for the land are harrassed or dispossessed. California law says otherwise.¹⁰ What can we lowly CARB-ites do but further its noble ends? Same post-Cartesian rules apply. Our hands are tied.

Anyway, if we get wind of abuses, all we need to do is lay down a rule saying don't do it, otherwise we won't accept your credits. (Of course, we have to be a bit flexible about this, otherwise we wouldn't be able to buy pollution rights generated by offsets at all.) And if the rules don't work, or it turns out we

ourselves are not applying them, well, we just write a new rule that says the old rules are going to be effective from now on. Problem solved.

Sure it's lame. But who cares? Lame can work if the point is just to disarm or delay critics. The point isn't whether all these rules work in Mexico, Brazil, PNG or anywhere else. All they have to do is work at the CARB crib in Sacramento to make sure that we can push something through that nobody wants except biz and their servants in the state and the geekocracies. Now, who's got the pepperoni and mushroom?

157
Then there's another objection. TFS is for offsets, right? Offsets are for keeping emissions up higher at home than they would have been otherwise, right? Because to do so is cheaper: that's what "cost effective" in AB 32 means. But: if emissions are kept high across the board in California, that means they are kept high in all the *usual* places where emissions happen. Nothing in the TFS says Long Beach polluters have to resite operations to Beverly Hills. Nobody's mentioned relocating LAX to Brentwood Park. So the TFS would indirectly reinforce – and maybe increase – all the old racially-skewed environmental damage that's inflicted by fossil fuel use right here in California. CARB can't have it both ways. If it needs to push a cheap alternative to reducing emissions at home, then it's going to be stomping on black, brown and red people, not only in countries like Mexico and Brazil, but also right around the corner.

CARB staffers ponder, munching their *quattro stagione*. Hmm. That one's not so easy to reply to.

Well, we can say that offsets might not necessarily make things worse, and that therefore according to the statutes we're not obligated to respond to this objection. And as for environmental racism in the state, that's just a historical pattern. It's not our fault that TFS would reinforce it.

But hold up. That doesn't sound so great, does it? Better throw a change-up. Shift the subject away from offsets and the TFS to all the *other* things we're thinking of doing that might counteract the way the TFS would double down on the oppression of the poor worldwide.

Uhhhh ... like what exactly? Well, maybe just wave our hands and say that "the coming years involve significantly more ambitious emissions reduction mandates, which are expected to produce dramatic reductions in GHG emissions and likely criteria pollutant emissions across all sectors covered by the Cap-and-Trade Program ... Other state programs focus more directly upon criteria and toxic pollutant reductions ..." ¹¹ Blah blah blah. You know the drill. Staffers go to town. Slice by slice, the pizza boxes empty out.

Problem is, all this temporizing's still not going to be enough to make those damn critics forget the question: Why let your left hand steal from your right? Why doesn't CARB just recommend banning offsets, and then carbon trading altogether, since it's already been proved to undermine both justice and climate action in country after country?

No time to think about that, though. Ddeadline on their minds, staffers keep tapping their keyboards as the dust rises. It gets thick enough, they figure, it might just keep that California public out there from seeing anything at all.

(SACRAMENTO, 10:00 A. M., 11/16/18)

Hearing time rolls around.

CARB staffers are ready. Replies to comments have been formulated and distributed. Supporters have been flown in. Cookie-cutter letters extolling coming California-themed offset capers have been solicited from local notables in Acre and Chiapas. DC neolib enviros and assorted consulting types have supplied *pro forma* endorsements.

Boffin testimony is typed up and on record, carefully shaped so that the central topic never comes up, namely, should California even be *considering* offsets? Should it even be *thinking* about a TFS? Instead, it's all: *This is a fait accompli, get me? How can we make it look less bad technically? What are some ways of making people swallow this? Give.*

Spoken or unspoken promises hang in the air. The name of the game: *quid pro quo*. Things are *organized*.

But wait. Who are all these people protesting and offering contrary testimony? We expected some trouble, but this looks like it's getting out of hand. We didn't think we'd left enough space for this. They're taking over.

The day goes on. Things don't get any better. Face it: we can't beat these guys on the evidence. We can't beat them on the science. We can't beat them on the reality of what the TFS is. These bozos are clued-in. They're indigenous peoples who've seen what happens on the ground. They're our own damned fenceline communities, who know that every bit of land taken from their brothers and sisters elsewhere means more pollution grief and global warming beefs for the people at home. They're academics who have lived and breathed forest offsets for years. They're people with experience. People who know from uncertainty, who know from land use, who know from carbon science.

Not that *we* care about any of that. Hell, you don't need to tell *us* this whole TFS game is a shuck. We're the ones who got it up. The problem is, if we keep on in the face of all this shouting, it's gonna vibe bad PR. Not the right move at this stage.

Regroup and recalibrate. Are we actually going to have to go thumbs down on the TFS? Nah, man, come on, too last-ditch. Better to put off a decision and hope for the best. Let's go on adding to our CalPERs pension nuts while we build up our strength and map out some bob-and-weave for the next encounter. What has the other side got to sustain themselves? Bupkes. Maybe they'll get tired. Maybe we can outlast them. Anyway, let's hope so.

So shall we say April for a decision on endorsing the TFS? Five or six months is enough, surely.

Or is it? Brainstorm: let's put the next comment deadline at the end of August, when people might be unavailable. Say August 29, how does that sound? It's a tweak on those old routines of only-release-bad-news-on-a-Friday-night, use-the-innocuous-bill-to-get-a-killer rider-through, and all the rest.

Glasses clink. Hey, maybe Strom Thurmond and all those other *filibusteristas* didn't die in vain after all.

But will it work?

6

(BRAZIL AND BOULDER, COLORADO, 8/27/19)

Meanwhile, down Brazil way, the forest burns as never before, including in Acre state, CARB's home-away-from-home in the region.

Tag it partly a result of the policies of new Prez Jair Bolsonaro. Since his election, Bolsie's been bent on inciting anti-indigenous race sentiment in order to ensure that extractive industries can take what they want in the Amazon.

After all, as one professor out of Colorado writes, "If the people who manage the forests are dead or dispossessed, who is left to protect the land from development and extractivism?"¹²

Which means more people than ever are wondering how long CARB can keep up the forest offsets act, including TFS. Is CARB going to send in an army whenever a threat looms to the "carbon sequestration" figures it needs to manufacture super-cheap pollution licenses for California industry? Calculate *that* baseline, baby. Check out *that* sector-based crediting.

The prof, Lauren Gifford, nails it: CARB-type REDD fantasies were "never designed to combat widespread state-sanctioned violence":

"The Amazon fires are a brutal exposure of the fallacy of REDD to protect forests and sequester rogue carbon. Continued engagement with REDD exposes NGOs and governments as strictly motivated by the business of development – the redistribution of capital under the guise of virtue – and less concerned with climate action, and protecting forests and the communities that depend on them ... don't call something climate mitigation when it isn't ... REDD is dead."¹³

"Endorsement day" looms. Where will CARB – and its reputation – be when the dust settles?

Larry Lohmann
The Corner House
29 August 2019

- 1 Richard Lane and Benjamin Stephan, "Zombie Markets or Zombie Analyses? Revivifying the Politics of Carbon Markets", in Benjamin Stephan and Richard Lane, *The Politics of Carbon Markets*, London, Routledge, 2015, 1-23.
- 2 Andreas Malm, *Fossil Capital: The Rise of Steam-Power and the Roots of Global Warming*. London: Verso, 2016.
- 3 George Marshall, *Don't Even Think about It: Why Our Brains Are Wired to Ignore Climate Change*. New York: Bloomsbury USA, 2014, Chapter 32: Well and Tailpipe.
- 4 Larry Lohmann, "Toward a Political Economy of Neoliberal Climate Science", in David Tyfield, Rebecca Lave et al., *The Routledge Handbook of the Political Economy of Science*, London, Routledge, 2017, 305-316. Cathy Fogel, "The Local, the Global, and the Kyoto Protocol", in Sheila Jasanoff and M. L. Martello, eds., *Earthly Politics: Local and Global in Environmental Governance*, Cambridge: MIT Press, 103-126.
- 5 "Responses to Comments on the Draft Environmental Analysis Prepared for the Endorsement of the California Tropical Forestry Standard", California Air Resources Board, November 9, 2018, 2-26.
- 6 Jutta Kill, *REDD: A Collection of Conflicts, Contradictions and Lies*, Montevideo: World Rainforest Movement, 2015; Mark Shapiro, "The Carbon Hunters", KPBS, October 10, 2010;
- 7 Mandy Mayfield, "California Gov. Jerry Brown to Protesters during Climate Speech: 'Let's Put You in the Ground'", *Washington Examiner*, November 11, 2017.
- 8 "Response", 2-6.
- 9 Ibid., 2-7, 2-8.
- 10 14 CCR §15126(a), 15360, 15382.
- 11 "Response", 2-9.
- 12 Lauren Gifford, "The Amazon Fires Mark the End of REDD+" *REDD-Monitor*, August 27, 2019, <https://redd-monitor.org/2019/08/28/guest-post-the-amazon-fires-mark-the-end-of-redd/>; see also James Temple. "Whoops! California's Carbon Offsets Program Could Extend the Life of Coal Mines", *MIT Technology Review*, August 26, 2019.
- 13 Gifford, "Amazon Fires".